

# PROPOSED MASTER PLAN

## CITY OF NEWARK, NEW JERSEY

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Division of City Planning



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## FOREWORD

More than a year ago the Mayor and Municipal Council authorized the preparation of a Master Plan and appropriated funds for that purpose. Subsequently a consulting firm was retained to prepare, in conjunction with the Central Planning Board and Division of City Planning, a Master Plan which would focus on Newark's development problems and aims.

Beginning with the 1947 Master Plan, adding an analysis of changes which have intervened, projecting future trends, and incorporating past studies and plans prepared by the Central Planning Board and Division of City Planning, a draft comprehensive plan was completed.

During the past six months members of the Planning Board and the staff of the Division of City Planning have spent many hours reviewing the consultants' work and making changes and modifications where necessary. The resulting document is available for examination in its entirety as the offices of the Planning Board in the City Hall. The portion presented in the following pages contains all the recommendations, plans and proposals for the various elements of the comprehensive plan.

After public hearing and adoption by the Central Planning Board, the complete Master Plan will be printed and the Master Plan will then become the City's comprehensive guide for future development and will provide a framework for both private and public improvement.

## LAND USE PLAN

### INTRODUCTION

The long-range plan for land use in Newark is designed to guide the future development of the city for the next twenty to thirty years. Because of the pace of urban change, periodic updating of the plan will be necessary at intervals of 3 - 5 years. The Land Use Plan was developed recognizing that there are many problems stemming from development of land over a period of the last 150 years under conditions quite different from those of the second half of the twentieth century.

This legacy of past development can be summarized as follows:

- a vital and distinguished Central Business District is presently hampered in realizing its potential because of excessive through traffic, mixed land uses, and blighted adjacent areas;
- large areas particularly near the city's core, contain many old, housing units in poor condition;
- a number of old and obsolete industrial clusters are located in overcrowded areas, lacking the facilities considered essential for modern industry;
- a large vacant marshy tract of land--the Meadowlands--has remained underdeveloped because of many factors including physical conditions, diverse ownership and lack of long-range planning.

Since the city is constantly undergoing change, the Land Use Plan is designed to improve problem areas and to guide new construction into a more functional development pattern. The Land Use Plan is based upon surveys and analysis of existing land use and neighborhood characteristics, in addition to population and economic factors.

The major objectives of the Land Use Plan are:

- 1) The strengthening and revitalizing of the Central Business District through:
  - elimination of excessive through traffic, improved parking facilities, expansion of prime office space, and clearance and redevelopment of adjacent blighted area;
  - improved pedestrian circulation.
- 2) Improvement of residential areas through renewal of areas in poor condition; rehabilitation of existing housing where feasible; varying housing types within neighborhoods where desirable; elimination of conflicting uses; and provision of reasonable community and neighborhood services, such as schools, parks and playgrounds.
- 3) Stimulation of industrial growth through:
  - clearance and redevelopment of obsolete areas;
  - rehabilitation of marginal areas including increasing loading and parking space, and elimination of non-industrial uses where possible;
  - provision of industrial land for new industries and expansion of existing industries;
- Development of Meadowlands as a planned industrial district.
- (4) Consolidation of existing commercial development in functionally unified shopping areas, and elimination of excessive strip commercial uses now found on virtually every major street.

## INDUSTRIAL LAND USE PLAN

The Industrial Land Use Plan is designed to provide for expansion of industrial uses both in existing industrial areas, through clearance and redevelopment, and in new locations. The goal of the Industrial Land Use Plan is to provide additional employment opportunities for skilled and unskilled workers in the City of Newark and to strengthen the city's tax base.

Recent trends throughout the country offer evidence of the increase in land required by the modern industrial plant. Factors influencing this trend include:

- the shift towards one-story plants necessitating a larger ground area for the factory structure;
- the continuing mechanization of industrial processes necessitating additional floor area for each worker; and
- the new demands for parking, loading and landscaping, resulting in an increase of total land area required for industrial enterprises.

Modern industry is more and more attracted to well-planned industrial parks and properly designated industrial districts which are protected by modern zoning from residential encroachment and other types of incompatible development and are provided with adequate access to railways, highways and waterways. The provision of such areas in Newark, combined with the city's natural advantages of an excellent port and metropolitan area markets, will serve as a positive asset in attracting new industry and retaining existing industry.

### Light Industrial Areas

Light Industry is defined as industry which engenders no noxious fumes, glare, excessive noise, smoke or other characteristics which would be disturbing to nonindustrial development. Five areas in the city are proposed for light industrial use: the Central Ward Industrial Area, the North Newark Industrial Area, the Orange Street Industrial Area, the Central Avenue Industrial Area, the Newark Core Industrial Area and the Ironbound Industrial Area.

The Central Ward Industrial Area includes the city's first Federally-assisted industrial renewal effort. The proposed industrial area is generally bounded by 17th Street on the north, Peddie Street on the south, Bergen Street on the west, and Belmont Avenue on the east. The area is served by a Pennsylvania Railroad spur adjacent to Jelliff Avenue. The proposed Midtown Connector Highway will be adjacent to the eastern boundary of this area and together with the railroad spur will provide good access for industrial uses. The area presently contains a mixture of industrial and residential uses, many of which are in substandard condition. It is proposed that this area be restricted to light industry with strong zoning and building safeguards against any industrial nuisances which would affect the residential uses in the nearby neighborhoods.

North Newark Industrial Area is located at the northernmost part of the city, between the E L Railroad and the northern city limit. It is bounded by Branch Brook Park on the west and Highland Avenue on the east. This area presently contains light industry in a campus-type setting. Good truck and rail access is provided by McCarter Highway and the Erie-Lackawanna Railroad. Rerouting of industrial truck traffic to avoid use of local streets such as Summer Avenue, Grafton Avenue and Montclair Avenues, will prevent the North Newark Industrial Area from being a detrimental influence to the residential area to the south.

The Orange Street Industrial Area is located north of Orange Street, adjacent to the Lackawanna Railroad tracks generally between Clifton Avenue and Plane Street. Present uses include light industrial and heavy commercial establishments. The proposed East-West Freeway will bound this area on the north. Good rail access is available, as well as access to major highways. It is proposed that this area be retained for light industrial uses.

The Central Avenue Industrial Area is located between Central Avenue and the proposed East-West Freeway, east of Bergen Street. The area presently contains light industrial uses mixed with some



residential uses to provide additional industrial land, and to rehabilitate substandard industrial structures. This area will have excellent highway access with the completion of the East-West Freeway and the Mid-town Connector.

The Newark Core Industrial Area is located on both sides of McCarter Highway between Edison Place and Murray Streets. It is presently an area of mixed industrial commercial and residential uses. It is proposed for light industrial uses to complement other Core functions. Highway and rail access are excellent; light industries oriented toward the Newark Core activities would be particularly appropriate.

Ironbound Industrial Area the northeastern triangle of the Ironbound area is presently predominantly industrial in use and has such establishments as the Ballantine Brewery Company and the Celanese Corporation. It is proposed that this area be retained as an Industrial Area, but that further incursion of heavy industry be discouraged.

Heavy Industrial Areas heavy industry is defined as industry which has characteristics which could be offensive to nonindustrial uses, such as smoke, glare, excessive noise, vibration and the like. Those industries classified as "heavy" would include refineries, paint and chemical manufacturers, large baking plants and manufacturers of fabricated metals.

Heavy industry is proposed in the Meadowlands east and south-east of U.S. Route 1-9, bordered on the south by the N.J. Turnpike extension to the Holland Tunnel and extending north of Raymond Boulevard to the Passaic River.

The Meadowlands represents a potential for industrial development which is regional in scope. The 1,700 acres in the Industrial River Urban Renewal Project are largely vacant, with access to all major types of transportation facilities. A major impediment to development of the Meadowlands has been stabilization of the land, but engineering experiences in various parts of the area have indicated that the problem is solvable. It is proposed that a comprehensive and detailed long-range plan be developed for the Meadowlands, treating the area by developmental stages in order to coordinate access routes, transportation facilities, industrial services and soil stabilization work.

#### General Industrial Areas.

General Industrial Areas are proposed to include both light and heavy industry where a mixed pattern already exists. Three areas are designated for general industrial use: Frelinghuysen Industrial Area, Passaic River Industrial Area, and the Southwest Ironbound Industrial Area.

Frelinghuysen Industrial Area is located on the southern end of the city, bounded generally on the west by Frelinghuysen and Elizabeth Avenues, on the east by U.S. Routes 1 and 9, on the south by the city limits, and on the north by Miller Street. It is an area well served by highways and the Pennsylvania Railroad, and is also adjacent to Newark Airport and close to Port Newark. It is the location of extensive new industrial com-

struction since Work War II, with almost half of the city's new factory construction located there. It is proposed that this area be designated for both light and heavy industry and enlarged to include the vacant land north of Newark Airport between the Lehigh Valley Railroad and U.S. Route 1 and 9. This expansion area presently has no streets for internal circulation but has excellent rail, highway, air and port transportation access potentialities.

The Passaic River Industrial Area is a strip along the Passaic River, from the Ironbound community to north Newark, generally east of McCarter Highway, except for a section between Orange Street and Third Avenue east, where it extends west to Broad Street. It is proposed that this area be strengthened by concentrating the light industrial and warehousing uses west of McCarter Highway and the heavy industrial uses east of McCarter Highway. Although the area contains many old industrial structures and is densely developed, it does contain a number of large stable industries such as Pittsburgh Plate Glass, Continental Can Company, Esso and Hillside Metal Products. It is recommended that a detailed study, possibly within the framework of the Area Redevelopment Administration's Program or the Urban Renewal Administration's Program, be made to determine the feasibility of consolidating this area for more intensive industrial development.

#### Port Newark and Newark Airport

An essential part of the Industrial Land Use Plan is the continued development of Port Newark. The advantages of having access to a modern port facility with warehousing and loading facilities are of prime importance for Newark's future industrial development. Decisions regarding plant location will certainly be influenced by the fact that Newark can provide such facilities, particularly since the port area is well-connected to other industrial areas in the city by U.S. Routes 1-9, the New Jersey Turnpike, and the various railroads. Aside from locations in the port area itself, industries requiring good port access may also be attracted to the southern portion of the Meadowlands industrial area.

Newark Airport is the key element assuring future industrial growth for this part of the city. In addition to passenger traffic, the ease of access to air transport for receiving and shipping goods would be a positive attraction to certain types of manufacturing establishments. A definite program should be developed to attract air-transport oriented industries such as precision parts manufacturers to the Meadowlands and Frelinghuysen Avenue industrial areas. The potential is great in this area for interrelating the shipping, air and rail transportation facilities and thereby developing a unique industrial climate.

In order to capitalize on these advantages, the Industrial Land Use Plan recommends that the Port Newark and Newark Airport areas should be set aside for general industrial development.

It is recognized that there are existing industrial uses scattered in many locations throughout the city. In many cases these uses will remain. For the objectives of the long-range Land Use Plan, however, an effort has been made to consolidate industrial uses wherever possible, to protect both the industrial and non-industrial uses in the city.

## RESIDENTIAL LAND USE PLAN

The Residential Land Use Plan is based on the analysis of existing physical and environmental characteristics, population and economic factors and the anticipated residential needs of the city. One of the major objectives of the plan, is the coordination of its proposals with the city's long-range urban renewal program.

It is recommended that in the presently sound residential areas delineated in the Existing Land Use section, no significant changes should take place in regard to predominant densities and residential patterns. In order to promote city-wide improvement of residential environment, significant changes are proposed in areas with incompatible mixed land uses. In sections with poor housing, where nonresidential uses prevail, portions of present residential areas are recommended to be utilized for industry, commerce or related services rather than rebuilding for residential development.

Land for the construction of new residence in many cases will be made available through redevelopment.

The most significant changes will generally occur in those locations designated for urban renewal treatment and particularly in their clearance and redevelopment areas. High-rise structures in the central areas and around nodal points on major arteries and mass transit lines, together with a more efficient use of land in these developments, will provide landscaped open space, sites for needed community facilities and a greatly improved living environment. One of the basic aims of the Residential Land Use Plan is to protect and enhance the quality of the existing residential communities. Where applicable, the plan makes provision for varied residential types of development in a community.

### Residential Densities

An essential element of the Residential Land Use Plan is the range of recommended residential densities, determining the number of dwelling units which should be permitted per acre of residential land. Density control is of particular importance to facilitate future planning for public services such as schools, parks, fire protection and others and to provide adequate open space, light and air.

While Newark's population has decreased during 1950-1960 decade from 438,776 to 402,815, i.e., by almost 36,000 persons, residential densities did not decrease during the same time. On the contrary, multi-family housing has been gaining in importance in the city, especially in units of 10 or more families, while the single-family structure has been declining in importance as a place of residence in Newark. Excessive conversion of tenement houses, has tended to increase residential densities in sections with poor housing.

The distribution of proposed densities for the residential districts is based on the assumption that by 1980 the size of Newark's population will not differ significantly from its current total, and that it will range then between 400,000-420,000 persons. Following is a description of the residential density distribution in the proposed Land Use Plan.

Low Density. A density of under 20 dwelling units per acre is proposed as the lowest category in the Residential Land Use Plan. It would include mostly 1-2 family detached houses and duplexes, but it would also be possible to develop row or town houses within this density range.

This 0-19 dwelling units per acre density is recommended in large parts of Vailsburg, Weequahic and North Newark where such development would be in harmony with existing housing.

Medium-Low Density. A medium-low density of 20-39 dwelling units per acre includes single-family row or town houses, two-story garden type apartments, 3-6 family houses, and apartments with low (about 25 per cent) land coverage. The above density is recommended in areas of Roseville, North Newark, Weequahic, Clinton Hill and Vailsburg. A contiguous but relatively small area of this density is proposed to be conserved in the Ironbound, on both sides of Wilson Avenue below the Lafayette Street intersection.

Medium Density. A range of 40-79 dwelling units per acre is proposed as the medium density category. Expressed in terms of typical housing types, the above density includes three-story walk-ups, and small tenements, duplex row houses and three-story garden type apartments and apartments with higher land coverage (about 30 to 35 per cent). Contiguous medium density areas are recommended in the majority of Newark's residential communities, as shown on the proposed Land Use Map. Spot areas of medium densities will be permitted in specified locations in the generally lower density areas of Vailsburg, Weequahic, Dayton and Clinton Hill.

High Density. The highest residential density proposed is 80 dwelling units and above. This category includes multi-family walk-ups 4 to 6 story apartments with land coverage of about 40 per cent and high-rise apartments. Because of their significance, the major high density locations are discussed below in somewhat greater detail.

High density residential is proposed for the Core and some of its adjacent sections including:

In Newark North a ribbon along Mt. Prospect Avenue bounded by Elmwood and Third Avenue; in the general area

of Archbishop T. J. Walsh Homes around the Grafton Avenue-McCarter Highway intersection; in the area around the Colonnade Park Apartments and Columbus Homes.

In Roseville around the intersection of West Market Street and Gould Avenue; further north near the Roseville Avenue railroad station and Sixth Avenue; and in the strip bounded by Fifth Street and Branch Brook Park.

In West Market for a number of blocks on Central Avenue, east of the Central Avenue - West Market Street intersection; and on the south side of West Market Street.

In the West Side extending through West Market and Belmont; about eleven blocks around the Springfield Avenue--Bergen Street intersection.

In Hayes Circle South a smaller area around Hayes Circle itself.

In Weequahic along Elizabeth Avenue.

In the Ironbound between Lafayette and Ferry Streets.

Several smaller high density areas have been designated in various parts of the city as indicated on the proposed Land Use Plan.

The major factors influencing the proposals for high densities in various locations are land values, accessibility to mass transportation, major concentrations of employment, shopping facilities, schools and other community activities, proximity to parks and other open space, and the present condition and type of housing stock in these areas.

## COMMERCIAL LAND USE PLAN

The commercial land use plan for Newark is developed in recognition that there are four rather distinct types of commercial areas, each serving a specific purpose. These are: the core area, community shopping areas, neighborhood shopping areas and general commercial. The objectives of the commercial Land Use Plan are:

- A core area sufficient in size and range of facilities to serve the regional market area.
- Community Shopping Areas to provide convenient and varied shopping and services for several neighborhoods, suitably located within residential areas on major thoroughfares and including adequate off-street parking.
- Neighborhood Shopping Areas to provide local areas with everyday shopping needs with adequate off-street parking.
- General Commercial areas to provide business services for the establishments in the Central Business District and for outlying commercial establishments, as well as to provide space for wholesaling, automotive sales and services.

### Core Area

The Newark Core is bounded by the railroad tracks north of Orange Street on the north, the Passaic River and the Pennsylvania Railroad tracks on the east, the proposed Mid-town Expressway on the west, and a line generally following Avon Avenue and Murray Street on the south. This area includes the major retail outlets, offices, hotels, restaurants, service establishments, public buildings, industries and residences. A more detailed plan for this district is presented in a subsequent section of this report.

### Community Shopping Areas

Seven areas are proposed for community shopping. These are distributed throughout the city, and are designed to serve the shopping needs of several neighborhoods. All but one of these shopping areas are proposed to be developed around existing centers of



retail activity. Five of the areas, Vailsburg, Roseville, Bergen Street (in Weequahic,) Ferry Street and Broadway-Bloomfield Avenue are presently strong commercial nuclei. In the future, additional action will be needed to provide off-street parking, to consolidate present commercial uses and to eliminate non-commercial uses.

More detailed description of the six proposed community shopping areas is as follows:

1. Vailsburg shopping area is located on South Orange Avenue between Sanford Avenue and Brookdale Avenue. This is a strong commercial area including a variety of retail stores, specialty shops, services and movie theaters. It is proposed that provision be made for off-street parking, possibly through spot clearance of substandard or noncommercial structures either on South Orange Avenue or on the side streets. This area will serve the Vailsburg community as well as much of the residential area adjacent to Vailsburg but outside the city limits.
2. Roseville shopping area is located at the western end of West Market Street, extending east to North Sixth Street and west to the city boundary. The area presently is a strong retail center with a wide variety of apparel and specialty shops, variety stores, services, small food stores, and two movie theaters. Orange Street is hampered in its function as a shopping street by heavy through traffic, little off-street parking, and some deteriorating buildings. It has been proposed that a commercial urban renewal project be undertaken in conjunction with construction of the East-West Freeway. The goal of the project would be to strengthen the Roseville shopping area by removal of blighted structures, removal of noncommercial uses, provision of off-street parking and provision where possible, of small open spaces to enhance the appearance of the shopping area.
3. Bloomfield Avenue - Broadway shopping area is proposed to extend along Bloomfield Avenue from Summer Avenue on the west to Broad Street and Colonnade Park in the east. This stretch of Bloomfield Avenue is presently a strong commercial area. This intersection of Bloomfield Avenue and Broadway is proposed to be redesigned as part of an urban renewal project, providing a new off-street shopping area. The preliminary plans call for realignment of Bloomfield Avenue to connect directly with Broad Street. This proposal would divert through traffic around the shopping area and permit maximum utilization of land for shops, parking, and perhaps a pedestrian mall. The Bloomfield Avenue-Broadway shopping area contains a wide variety of retail and service uses, somewhat similar in character to the Central Business District although on a much smaller scale. The Land Use Plan proposes

that this shopping area will serve the whole Newark North Community, east of Branch Brook Park.

4. West Side shopping area is proposed to be located around the intersection of Springfield Avenue, South Tenth Street and 18th Avenue. This area is presently a strong retail center, including apparel stores, specialty shops, restaurants, supermarkets and branch banks. The area should be further strengthened through the clearance of substandard structures and rehabilitation of other old structures. Spot clearance could provide off-street parking; zoning controls could direct commercial development away from adjacent east-west streets and concentrate such activity in a more unified area. Additional areas are located on Springfield Avenue at Bergen Street and Belmont Avenue.
5. Weequahic shopping area is located on Bergen Street between Lyons Avenue and Custer Avenue. The area presently contains a substantial amount of commercial activity, including apparel shops, grocery and other food stores, supermarkets, personal service stores, a movie theater and branch banks. The major problem in this area is lack of space for expansion and off-street parking. It has been proposed that this shopping area receive commercial renewal and rehabilitation treatment to remedy these problems. The shopping area serves the Weequahic community as the major shopping facility.
6. Ferry Street shopping area is located in the Ironbound community starting at Prospect Street on the west and extending along Ferry Street to Merchant Street and the intersection with Wilson Avenue. This area is presently the commercial center of the Ironbound community and contains virtually every type of community commercial use, including specialty shops, apparel, hardware and food stores, personal service stores, gas stations, branch banks and variety stores. Ferry Street is a major street for through traffic, there is no off-street parking, and double parking is not uncommon. It is proposed that this area be strengthened as a community shopping area by provision of off-street parking. The completion of the proposed widening of Raymond Boulevard will be a major improvement for this shopping area, as Ferry Street will be relieved of much through traffic between the core area and the New Jersey Turnpike and U. S. Routes 1 and 9. The Ferry Street shopping area presently serves and will continue to serve as the major shopping facility in the Ironbound Community.
7. Hayes Circle shopping area is located generally along Clinton Avenue between Lincoln Park and the intersection of Clinton Avenue with Elizabeth Avenue. This area is proposed as a community shopping area to serve the high density residential areas to the north and west.

### General Commercial

Eight general areas are designated for general commercial use. These are located on major streets leading into the city, adjacent to industrial areas, and near the core area.

1. Broadway, at the northern end of Newark, is proposed for general commercial use. This area presently is mixed commercial, light industrial, and residential in character. However, this area could be established as one of business and industrial services, serving the light industrial area to the north.
2. Franklin Avenue-North Sixth Street just west of Branch Brook Park at the northern end of Newark is proposed as a general commercial area. It is presently an area of general commercial and light industrial uses. Franklin Avenue is a major street from Belleville; Heller Avenue which bisects this commercial area is one of the few streets which crosses Branch Brook Park directly. This area therefore will serve considerable through traffic as well as the North Newark light industrial area and the industry nearby in adjacent Bloomfield.
3. Central Avenue Area, immediately east of the proposed Midtown Expressway and south of the Raymond Boulevard connector to the East-West Freeway is proposed as a general commercial area. The area presently contains some automotive and wholesaling uses, as well as light industrial uses, as well as light industrial uses. This is an area close to the downtown and adjacent to two proposed major traffic arteries. Business services, as well as highway commercial uses to serve transient traffic, will be well located in this area.
4. Lincoln Park near Broad Street south of Kinney Street for several blocks, is proposed for general commercial use. This area in close proximity to the Central Business District and the Symphony Hall, would be a good location for business services functions, as well as industrial services for the adjacent industrial areas to the east. The area presently is a mixture of commercial, residential and light industrial uses, with a few small vacant lots.
5. Market Street, east of Penn Station, is the location of a proposed general commercial area, extending from Raymond Plaza to Van Buren Street. This area contains a mixture of light industrial and commercial uses with some residences at the eastern end. The Market Street area could provide commercial services such as diners, drive-in services, and gas stations for the traffic entering and leaving the Core Area.

6. Washington Street south of Branford Place. This area is stated for redevelopment and is in an ideal location to serve the Central Business District and automobile trade. Improvement of both Washington and Plane Streets will improve access and circulation.
7. Elizabeth Avenue north of the proposed Interstate 78 extending to Alpine Street, is proposed for general commercial use. The existing uses are mixed including automotive sales and service, eating places, light industrial uses, neighborhood services, and Sears and Roebuck Department Store. This area will serve both the transient traffic using Elizabeth Avenue as a through route to the city, and also will provide business and industrial services for the adjacent industrial areas to the south and east.

#### Neighborhood Shopping Areas

As in most older cities, the frontage on Newark's major streets is, in large part, zoned for commercial use. Virtually all through east-west streets are zoned for commercial, as are all the major north-south streets and the radial streets. In many places there is a grouping of these small stores, including drug stores, grocery and food stores, barbers, beauty shops, dry cleaners, stationary stores, shoe repair shops, and other convenience-type stores. In other locations there may be only one or two stores surrounded by residential uses. These groupings, large or small, perform a necessary function of providing the neighborhoods with everyday convenience-type goods and services.

The commercial land use plan has indicated a number of areas for neighborhood shopping uses. These areas do not represent all the existing local stores. There has been an effort in the plan to consolidate these uses into more compact neighborhood shopping centers, thereby strengthening them and protecting adjacent residential areas.

## CORE AREA PLAN

The proposed land use plan for the Core Area of the city is designed to create a more efficient pattern of land use in this strategic section of Newark. The plan proposes to separate incompatible uses and provide a framework for more intensive development and use of the high value land. The various sections of the Core Area are designed to be developed so that they will be served by, rather than be in conflict with, the proposed street and highway network.

The most intensively used, highest value land in the city is concentrated along Broad Street just north of Market Street.

A principal objective of the Core Area plan is to provide for additional retail and office uses, and to concentrate these intensive commercial uses in the central portion of the Core Area. A secondary commercial center would be encouraged to expand along the southern portion of Broad Street centered on Lincoln Park.

### New Neighborhoods

The scale of the contemplated downtown residential redevelopment presents an opportunity to create a more imaginative urban design than in the past. In the past, residential construction occurred on a lot by lot or subdivision basis. Now the scale of the proposed reuse parcels is such, that entire new neighborhoods can be created.

In order to create complete neighborhoods, the Core Area renewal should be designed to contain not only dwelling units and the usual accessory uses (parking) but also the entire range of supporting public facilities (schools, churches, play areas, etc.) and private supporting facilities such as retail stores, professional services, and others. These supporting facilities should be considered part of the residential reuse pattern and could be designed to form a part of the high rise buildings. As a result a group of these high rise buildings would be equivalent to a small neighborhood.

### Circulation Pattern

An improved circulation pattern is recommended for the downtown designed to permit through traffic to by-pass the Central Area as well as to provide easy access to the Core Area destinations. The street and highway network should be improved through the provision of a new inner loop street system combined with the improvement of existing streets. One of the key elements of the Core Area traffic plan is the proposed reduction in the land area devoted to streets. Wherever possible, superblocks will be created in order to keep large areas free from traffic interference.

### Core Area Land Use Plan

Intensive Commercial. There are many advantages in further concentration of the intensive commercial development around the Broad Street axis from Central Avenue to Kinney Street. The transportation facilities have made this area accessible from all directions of the region; the distances are short, permitting face to face contacts which are important to the business community; and the retail uses benefit from the combined pulling power of a large variety of stores.

In order to strengthen the dominance of downtown Newark, the following uses should be developed in the area designated for intensive business:

All types of business uses and supporting facilities such as retail stores, businesses offices, financial institutions, offices for the conduct of research, theaters, hotels, restaurants, and parking garages as well as government offices and other public facilities.

Secondary Commercial. A secondary commercial center exists at the lower end of Broad Street. It differs from the former area in that it lacks a concentration of major retail stores and many of its office uses are located in converted residential buildings which provide ease of access and parking. Since it would not be desirable to dilute the existing retail concentration, it is proposed that personal service office uses, rather than retail uses, be encouraged to develop here.

Residential Uses in Core Area. Newark has two major housing tasks; to replace its blighted housing, largely with low cost housing; and to provide additional attractive middle income housing in order to hold existing residents, encourage the return of families who have left for the suburbs, and to attract new residents to the city. In order to accommodate new dwelling units in the Central Areas and supply sufficient open space and parking it will be necessary to rely mainly on high-rise structures. This type of residential development has a number of advantages: those people who employed in Downtown can walk to work, and those who commute to other areas will be close to the heart of the mass transportation network. High-rise structures will result in the maximum amount of open space and will effect economies in servicing.

In the residential areas near the downtown a variety of development types are recommended including all types of residential structures with a density ranging downward from 145 dwelling units per acre for structures containing 75 per cent efficiency units, to approximately 110 dwelling units per acre in developments which contain both small and large apartments. Adequate off-street parking and open space will be required for each residential structure. Together with the residential buildings, some neighborhood shopping facilities and a limited number of professional offices would form a more complete development unit.

Industrial Uses. The city recognizes that industry makes up a substantial portion of its economic base, and that future growth is dependent on new job opportunities. Only industries which can meet high performance standards with respect to noise, odors and vibration will be permitted in the Core Area. The following industrial and supporting uses are recommended: non-obnoxious industries such as printing, electronics and apparel, which will not result in noise, smoke, odors, glare or other nuisances; and will minimize the amount of traffic congestion.

Storage and wholesale activities, provided with adequate off-street loading and parking facilities. Uses accessory to industry such as offices for the management and operation of industry, branch banks, and eating establishments.

Public and Institutional Uses. A number of sites in the Core Area are designated institutional, and will provide for the expansion of several institutions of higher learning and a variety of other public and semipublic uses. The following uses are recommended for the institutional use areas:

- public and semipublic institutional uses such as universities and colleges, institutions, museums, libraries, hospitals and a botanical garden.
- dormitories and other residential accommodations related to such institutional uses.

A new public park is proposed in the southwestern section of the core area. In addition a linear park along the Mid-town Expressway is proposed in conjunction with the highway construction. Much of the open space needs will be met within specific renewal areas and will be private rather than public open space.

#### Summary of Proposed Future Land Uses in the Central Area

The following table summarizes the proposed land use pattern for the Central Area. The outstanding difference between the existing and proposed land use pattern is that the latter represents a much more efficient use of land as a result of street elimination. The area devoted to streets will be almost cut in half. This will permit a substantial expansion of both the residential and industrial areas, and a slight increase in the commercial areas.



TABLE I

PROPOSED LAND USE FOR THE CENTRAL AREA  
NEWARK, NEW JERSEY

<u>Use</u>	<u>Proposed Acres</u> <u>(approximate)</u>
Streets and Highways	565
Residential	890*
Commercial	240
Intensive Business	240
Secondary Commercial	20
Industrial	400
Industrial Service	350
Planned District	150
Public and Semipublic	95*
Institutional	95
	Gross Area 2,260

\*Park areas and accessory commercial uses are included in the residential total.

## TRANSPORTATION PLAN

### OBJECTIVES AND STANDARDS

The establishment of traffic and transportation objectives and standards is one of the most important parts of the street and transportation planning program. It represents a conscious determination of the type of transportation system the City of Newark wishes to achieve. By determining transportation objectives and standards, Newark will outline goals that it may seek to attain for improving existing transportation facilities and guiding new construction. Basically objectives and standards have the following purposes:

- ...They provide an outline of the city's transportation development policy by defining city objectives.
- ...They define general standards that can be used to guide the implementation of the suggested objectives of the plan.

#### Objectives of the Traffic and Transportation Plan

1. Promoting an improved metropolitan traffic and transportation system.
2. Channeling through traffic to a limited access highway system.
3. Relieving residential neighborhoods of unnecessary through traffic.
4. Providing adequate off-street parking, and direct access to areas of living, working and shopping.
5. Routing mass transit facilities as directly as possible to provide adequate service without unnecessary duplication.
6. Proposing traffic and transportation improvements that are practical in concept and financially feasible.

### Standards

Under the street classification system discussed earlier, four types of streets or highways were briefly defined. The following description further defines these four classes of streets in terms of minimum design standards:

#### Expressways

Function : To provide traffic circulation continuity by expeditiously moving large volumes of through traffic between areas and across the city.

#### Access

Conditions: Divided roadway with full control of access points. Grade separation at intersections.

Spacing : Variable, related to the pattern of population, and commercial and industrial centers. Generally one to three miles.

Widths : Right-of-way - 120 feet plus width of median pavement, 12' per lane, 10' shoulder.

#### Desirable

##### Maximum

Grade : 3 per cent

##### Moving

Lanes : 4 up

##### Linkage

: Land use - Major Generators  
Highway - Interstate and State Primary

##### Design

Speed : 50 MPH

#### Primary Arterials

Function : To expedite the movement of through traffic between areas and across the city areas with surrounding communities; to provide connections between collector streets, the major traffic generators and the expressway system.

Access

Conditions: Intersection at grade. Generally, direct access to abutting property.

Spacing : From one-fourth to one-half mile in the downtown and densely built-up portions of the city to a spacing of up to two miles in low density area.

Widths : Right-of-way - 100 feet to 120 feet  
Pavement - 11 feet per lane for two moving lanes  
10 foot parking lanes or shoulder

Desirable

Maximum

Grade : 4 per cent

Moving

Lanes : 4 to 6

Linkage

: Land use - Secondary Generators  
Highway - State Primary and Secondary

Design

Speed : 40 MPH

Collector (Secondary Arterial)

Function : To provide traffic routes to connect a number of local streets to the major arterial system.

Access

Conditions: Intersection at grade. Direct access to abutting properties.

Spacing : One-half mile in urban areas and one or two collectors spaced evenly between and parallel to adjacent major arterial streets.

Widths : Right-of-way - 60 feet to 80 feet  
Pavement - 10 feet per lane,  
10 foot parking lane, or shoulder

Desirable

Maximum

Grade : 8 per cent

Moving

Lanes : 2 to 4

Linkage

: Land use - Local Areas  
Highways - County Roads

Design

Speed : 30 MPH

Local Streets

Function : To provide for direct access to abutting lands,  
and for local traffic movements.

Widths

: Right-of-way - 50 feet to 60 feet  
Pavement - 10 feet per lane  
8 to 10 foot shoulder or parking

Desirable

Maximum

Grade : 12 per cent

Moving

Lanes : 2 to 4

Linkage

: Land use - Individual Sites

Design

Speed : 25 MPH

Design standards for mass transit facilities are usually developed individually for each particular installation.

## TRAFFIC PLAN

The Traffic Plan for Newark presents a comprehensive range of proposals for expressways, major arterial and collector streets as well as for one-way pairs, street realignment and interchange improvements.

### Expressways

The expressway system proposed for Newark serves as the framework for most of the proposals affecting street improvements in the city. An outer loop is formed by the proposed expressway system surrounding the core area. It is made up of Interstate Route 280, on the north; Interstate Route 78, on the south; the Midtown Expressway, a proposed north-south route, west of the Central Business District; and New Jersey Route 21 (McCarter Highway), east of the Central Business District.

The Midtown Expressway is proposed as an eight lane facility designed to collect and distribute large volumes of traffic destined for, or originating in Newark.

In addition, a belt highway would be formed by extending the Midtown Expressway north to a junction with McCarter Highway south of Mt. Pleasant Cemetery; and extending the Midtown Expressway south to Routes 1 and 9 west of the north extension of the Midtown Expressway at Bloomfield Avenue is recommended.

Relocation of McCarter Highway is proposed from Bridge Street to Edison Place. In addition, all improvements on McCarter Highway should be made to expressway standards with an expressway type interchange planned at the junction of McCarter, I-78, and U.S. 1.

The outer expressway loop together with the connecting intersections provides the basis for many of the plan proposals. These proposals will complement and coordinate the development and integration of the existing major streets system with the improvements proposed in the land use plan.

Service Streets - A large proportion of the traffic carried on the Midtown Expressway, between the two Interstate Routes, will be destined for Central Business District and west Newark. Therefore, service streets will be needed here, as well as along the McCarter Highway for the transition from the expressway system to city streets.

Along the Midtown Expressway the west service road, for southbound traffic, will consist of sections of Norfolk and Jones Streets and Belmont Avenue. North of Central Avenue, Norfolk Street will be relocated to join Clifton Avenue near I-280. South of Peddie Street, Belmont Avenue will join the westbound service street of I-78.

The eastern service road of the Midtown Expressway, for northbound traffic, will be made up of sections of Hillside Avenue and Prince, Boston and Newark Streets. North of Central Avenue this service street will join relocated Norfolk Street.

The existing alignment of the McCarter Highway could be used as a service street from Bridge Street to Market Street. Also, on the east side of the Highway, a service street is proposed from Raymond Boulevard to Market Street to improve circulation in the Pennsylvania Station area and alleviate some left-turn movements.

Interchanges - Channelizations and grade separations are proposed to improve many critical intersections throughout Newark. Major interchanges are proposed at the junction of the expressways and a number of major arterials.

The following is a list of proposed major interchanges:

Midtown-McCarter - at Oriental and Ogden Streets.

Interstate 280-Midtown - connecting at Raymond Boulevard and Central Avenue.

Midtown-Market Street - connecting at Nelson Place and West Market Street, and South Orange Avenue.

Midtown-Springfield Avenue - connecting at Court Street.

Midtown-Clinton - connecting at West Alpine Street and Avenue Avenue.

Interstate 78-Midtown-U.S. 22 - connecting at U.S. 22.  
Access only from proposed frontage streets.

Midtown-Frelinghuysen Avenue - connecting from Noble Street.

Midtown - Routes 1 and 2 - connecting south of Haynes Avenue.

McCarter - Broad Street - connecting at Poinier Street.

McCarter - Mulberry Street - channelization between Camp and Pennington Streets.

McCarter - Market Street - ramps to Raymond Boulevard and Market Street.

Frelinghuysen - Clinton - High - connecting High Street and Frelinghuysen over Clinton Avenue.

Frelinghuysen - Clinton - Washington - connecting Washington Street and Frelinghuysen over Clinton with connections at South Street and Lincoln Park.

#### Major Arterials

Recommended improvements for major arterial street system include:

Central Avenue - widening to 6 lanes between Broad and Lock Streets and a signalized channelization at Broad Street.

High Street - channelized intersection at Branford and widening and realignment at Orange Street.

Springfield Avenue - widening from High Street to Morris Avenue to provide two lanes each direction.

Court Street - realigned to a position that lines up with Walnut Street at Broad Street.

Broadway - relocated between Bloomfield and Broad Street.

Market Street - widen from Raymond Plaza west to Broad Street.

Bloomfield Avenue - continue to the realignment of Broadway and the improvement of Clark Street.



Many other major arterial and collector streets will be improved and channelized. Some of the existing major streets will be made into one-way pairs and adjustments in alignment will be made to improve their function. The proposed one-way pairs are as follows:

Raymond Boulevard - Morris Canal - east on Raymond Boulevard, west on new lanes in the old Morris Canal bed right-of-way east of the McCarter Highway.

Adams - Van Buren - south on Van Buren, north on Adams Street with improvements at Market Street.

South - Thomas - east on South and west on Thomas with the extension of Thomas south of Adams and realignment of South and Thomas at the Pennsylvania Railroad.

South - Tichenor - Between the Pennsylvania Railroad and Clinton Avenue; east on South and west on Lincoln Park and Tichenor.

Alpine - Avon - east on Alpine, from Jelliff to Belmont, west on Avon from Somerset to Belmont.

Waverly - Spruce - east on Waverly and west on Spruce. Improve Spruce over the Midtown Expressway.

South Orange - 14th - east on 14th, west on South Orange from the Midtown Expressway to Vailsburg Park.

Branford - Nelson - east on Branford and Edison, west on Nelson. All three require widening and realignment.

Washington - Plane - north on Washington and south on Plane to Marshall. Washington to Marshall and Plane needs alignment and improvement.

In conjunction with the major streets numerous other streets should be used as one-way ramps and approaches to the proposed expressway system.

The proposed major arterial system plan for Newark is shown on the accompanying Traffic Plan Map. In addition to the outer loop

formed by the expressway system an inner loop is formed by elements of the major arterial system. The inner loop is made up of Central Avenue on the north, Mulberry Street on the east, Clinton Avenue on the south, and Washington Street on the west.

#### Collectors

As the plan shows the present collector street system has been partially absorbed by the one-way street system. In areas where the changes in major arterials have not directly changed the function of collectors these streets will remain in the same classification.

Collector streets shown on the plan will continue to supplement the major arterial system. This is particularly true for north and west Newark where major arterials are fewer in number. As part of the overall plan and program for Newark's streets, the collector system should be improved together with the major arterial system.

#### Bridges

The capacity of several critical bridgeheads will be increased through the channelization proposals of the street plan. The four lower level bridges at Jackson Street, Bridge Street, Hudson and Manhattan and Clay Streets should be replaced as they become uneconomical to operate.

## MASS TRANSIT PLAN

The mass transit plan is the aggregate of past transportation study recommendations related to city-wide development plans.

### Bus Operations

Although Newark has an excellent bus system, the improvement in Newark's streets will foster increased use of the automobile. It is important to the total transportation program that mass transit should absorb as many passengers as possible. Bus service presently carries twice as many passengers as private automobiles and therefore it should continue to try to increase its share of the total number of passengers in order to keep the new highways from saturation.

The new expressway system will provide the bus operation with an opportunity to increase its express service. Many of the surrounding communities could be served by express routes that terminate at an off-street station in the Central Business District.

Consideration should be given to the proposal that a new transportation terminal in front of Penn Station be constructed to provide terminal facilities for express buses.

As the Plane and Washington Street improvements are made and the Midtown Expressway and McCarter Highway routes are completed, Broad Street will be available for increased unobstructed transit

use.

### Subway Extensions

It has been estimated that a new subway from Irvington to Belleville could, through its own revenue sustain itself once in operation. Nevertheless, the high construction cost of such a facility indicates that it could be built only through the use of public funds. It is proposed that a detailed study subway-commuter railroad alternatives be undertaken. Various agencies in the Newark region have made suggestion for specific facilities but no overall concept has been explored.

#### Rail Operations

The possibility of extending the Hudson and Manhattan via the Lehigh Valley Railroad has merit in the framework of the total northeastern New Jersey transportation program.

Also extension of the Hudson and Manhattan to Great Notch on the Erie-Lackawanna seems feasible. Passengers to Newark could take buses from the Broad Street station or transfer to the city subway at the new station at Orange Street.

Plans are also under study to route the Central of New Jersey over Lehigh Valley tracks to Penn Station. If this proposal becomes a reality the present Central of New Jersey tracks and the Broad Street station could be abandoned thus opening up certain areas in the downtown for new development.

## PARKING PLAN

Three factors were used to gauge the proposed location of new parking facilities:

1. Destination of the Central Business District parker.
2. Number of parkers to be accommodated.
3. Type of parker to be served and his access to the Central Business District.

A total of six new, 600-space parking structures are estimated as needed by 1900 to supply the necessary spaces in the Newark Central Business District. Four of these structures should be located near the heart of the Central Business District with more on the west side than the east side. The two remaining structures should be located in the north and south portions of the Central Business District.

Because merchants need short-term spaces for their customers, three of the parking structures should be short term and two structures mixed with short and long-term parking. Also, curb space regulations should be enforced to insure the turnover.

## COMMUNITY FACILITIES PLAN

This phase of the Master Plan includes an analysis of the existing community facilities serving Newark, a review of available national, state and local standards, and the development of a plan designed to improve present community facilities as well as to provide a basis for improvements needed during the next twenty to thirty years. The Community Facilities Plan is divided into the following sections:

- Public Schools Plan

A plan for improving the physical facilities of the school system to meet the requirements of a modern educational system.

- Recreation Plan

A plan for the provision of a wide variety of parks, playground and playfields to meet the active and passive recreational requirements of all age groups within Newark.

- Public Buildings Plan

A plan for providing a system of functionally located public buildings necessary to serve the administrative, safety, health, cultural and welfare requirements of the people of Newark.

- Public Utilities Plan

An analysis of the sanitary and storm sewer system, the water supply and distribution system and the refuse collection and disposal facilities of the city to indicate present deficiencies and plan for anticipated long range needs.

## SCHOOL PLAN

### INTRODUCTION

The School Plan is primarily concerned with the size, location and structural condition of school buildings, the adequacy of existing school site sizes and student enrollment capacities. (1)

### SCHOOL ADMINISTRATION

The public schools of Newark are administered by the Board of Education which is composed of nine members appointed by the Mayor, each for a three-year term. The executive officer is the Superintendent of Schools who has charge of the general educational school program.

### SCHOOL ORGANIZATION

Newark has recently completed a reorganization study of its school system. The present system of kindergarten, and eight-grade elementary schools and four-grade high schools, has been modified to provide kindergarten to sixth-grade in elementary schools, three-grade junior high schools and three-grade senior high schools.

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(1) This section of the Community Facilities Report is based on data made available by the Newark Superintendent of Schools and the Division of City Planning and the 1952 report on School Plant Facilities of Newark prepared by Clarence Ackley and Associates.

## EXISTING SCHOOL FACILITIES

### Public Schools

The present public school system consists of fifty elementary schools, six junior high schools, and eight senior high schools. There are also ten special schools for mentally or physically handicapped children.

Table 2 summarizes the physical characteristics of school plants, existing enrollments, enrollment capacities, grades served by each school facility, and a summary of the 1952 Ackley School Plant Survey. In the Ackley survey every school building was carefully inspected and analyzed using standards and criteria developed by the New Jersey Board of Education, and other school planning authorities. The analysis covers such details as the following:

1. School Grounds
2. Structural Characteristics of the Building
3. Instructional Centers
4. General Service Rooms
5. Administrative Facilities
6. Service Systems
7. Sanitary Facilities.

Each of the items is given a numerical rating determined on the basis of whether the item is considered to be: A-Excellent, 86 - 100 per cent of standard; B-Good, 76 - 85 per cent of standard; C-Fair, 61 - 75 per cent of standard; D-Poor, 50 - 60 per cent of standard; or E-Missing or Inferior, below 50 per cent.

### Special Schools

Special education in the City of Newark is concerned with meeting the educational and social needs of mentally, physically, socially handicapped, and emotionally disturbed children of school age.



TABLE 2

CHARACTERISTICS OF THE PUBLIC SCHOOL SYSTEM OF NEWARK, 1962

<u>ELEMENTARY SCHOOLS</u>	<u>YR. BUILT AND ADDITIONS</u>	<u>NUMBER OF STORIES</u>	<u>GRADES SERVED</u>	<u>SITE (ACRES)</u>	<u>ENROLLMENT (9/62)</u>	<u>CAPACITY (9/62)</u>	<u>ACKLEY SURVEY RATING (9/52)</u>
ABINGTON AVENUE	1900 1924, 1942	4	K-8	0.90	620	860	627 FAIR
ALEXANDER STREET	1885 1921	3	K-7	1.18	894	810	549 POOR
ANN STREET	1891 1923	4	K-8	2.34	985	1,170	560 POOR
AVON STREET	1905 1925, 1963	3	K-6	1.27	1,273	1,200	680 FAIR
BELMONT- RUNYON	1961	N.A.	K-6	1.25	1,217	820	N.A.
BERGEN STREET	1900 1906, 1963	4	K-6	1.34	1,626	1,430	591 POOR
BRAGAN AVENUE	1928	3	K-7	1.15	877	910	673 FAIR
BROOKWAY	1955	N.A.	K-8	8.50	894	930	N.A.
BURNET STREET	1868 1914	3	K-8	1.04	869	880	642 FAIR
CAMDEN STREET	1883 1927	3	K-6	0.78	1,085	690	426 INFERIOR
CENTRAL AVENUE	1871 1913, 1931	3	K-8	0.98	841	730	673 FAIR
CHANCELLOR AVENUE	1930	3	K-8	2.80	673	680	795 GOOD

TABLE 12 (cont'd)

ELEMENTARY SCHOOLS	YR. BUILT AND ADDITIONS	NUMBER OF STORIES	GRADES SERVED	SITE (ACRES)	ENROLLMENT (9/62)	CAPACITY (9/62)	ACKLEY SURVEY RATING (9/52)
CHARLTON STREET	1895 1921	3	K-8	0.95	1,665	1,380	660 FAIR
CLEVELAND	1912	4	K-6	1.70	1,378	1,010	725 FAIR
COS PLACE	1902	2	K-3	0.17	245	230	444 INFERIOR
DATON STREET	1950 1961	2	K-8	2.69	1,073	1,310	932 EXCELLENT
EIGHTEENTH AVENUE	1871 1922	4	K-6	0.88	1,192	1,130	622 FAIR
ELLIOTT STREET	1871 1921	4	K-6	0.88	428	480	620 FAIR
FIFTEENTH AVENUE	1895 1904	3	K-8	0.92	1,391	1,220	611 FAIR
FIRST AVENUE	1928	3	K-8	1.06	588	560	659 FAIR
FOURTEENTH AVENUE	1906 1909	3	K-8	1.12	957	740	667 FAIR
FRANKLIN	1889 1922	4	K-6	1.04	828	960	626 FAIR
GARFIELD	1894 1914, 1960	3-4	K-8	1.38	970	880	645 FAIR
HAWKINS STREET	1878 1922	3	K-8	1.10	960	900	550 POOR
HAWTHORNE AVENUE	1897	3	K-7	1.32	1,121	910	661 FAIR

TABLE 13 (cont'd)

ELEMENTARY SCHOOLS	YR. BUILT AND ADDITIONS	NUMBER OF STORIES	GRADES SERVED	SITE (ACRES)	ENROLLMENT (9/62)	CAPACITY (9/62)	ACKLEY SURVEY RATING (9/52)
LAFAYETTE STREET	1903 1914	4	K-8	1.11	1,262	1,110	701 FAIR
LINCOLN	1908 1925	3	K-7	1.38	638	690	718 FAIR
MADISON	1904 1926, 1952	3	K-6	1.28	999	910	697 FAIR
MAPLE AVENUE	1926	3	K-8	1.50	857	940	703 FAIR
MCKINLEY	1899 1910	3	K-6	1.40	1,241	1,200	547 POOR
MILLER STREET	1880 1913, 1963	4	K-8	1.50	1,623	1,080	629 FAIR
MONMOUTH* STREET	1886 1896	3	K-6	0.43	549	610	548 POOR
MORTON STREET	1851 1909	4-5	K-6	0.26	1,175	1,020	598 POOR
MOUNT VERNON	1955	N.A.	K-7	4.75	1,078	1,130	N.A.
NEWTON STREET	1871 1913	3	K-8	1.47	1,238	1,190	613 FAIR
OLIVER STREET	1869 1922	3-4	K-8	1.58	967	1,000	657 FAIR
PESHINE AVENUE	1911 1921, 1963	3	K-8	1.25	1,476	1,030	701 FAIR
QUITMAN STREET	1963	N.A.	N.A.	6.6	1,668 (1963)	N.A.	N.A.

TABLE 2% (contd)

ELEMENTARY SCHOOLS	YR. BUILD AND ADDITIONS	NUMBER OF STORIES	GRADES SERVED	SITE (ACRES)	ENROLLMENT (9/62)	CAPACITY (9/62)	ACKLEY SURVEY RATINGS
RIDGE STREET	1911			1.15			589
	1921	2	K-6		459	490	POOR
ROBERT	1887			1.93			682
TREAT	1915, 1956	3	K-6		1,457	1,340	FAIR
ROSEVILLE	1884			0.30			459
AVENUE	1903	3	K-7		414	290	INFERIOR
SOUTH STREET	1893	3	K-5	0.57	426	430	499
	1900						INFERIOR
SOUTH EIGHTH STREET	1873	3	K-8	0.90		970	483
	1907, 1963				1,571		INFERIOR
SOUTH 17TH STREET	1911	3	K-8	1.90			541
	1914				1,104	1,050	POOR
SOUTH 10TH STREET	1870	3-4	K-8	0.72	792	640	541
	1896						POOR
SPEEDWAY AVENUE	1917	3	K-3	1.00	197	230	576
							POOR
SUMMER AVENUE	1883	3	K-6	0.53	957	890	645
	1927						FAIR
SUSSEX AVENUE	1900			0.63			490
	1904, 1958	3	K-8		851	640	INFERIOR
WARREN STREET	1892	4	K-6	1.15	762	530	525
	1906						POOR
WAVERLY AVENUE	1891	3	K-6	0.65	685	530	438
	1900						INFERIOR
WILSON AVENUE	1881	3	K-5	1.38	740	760	659
	1925						FAIR

TABLE 2. (contd)

JUNIOR HIGH- SCHOOLS	YR. BUILT AND ADDITIONS	NUMBER OF STORIES	GRADES SERVED	SITE (ACRES)	ENROLLMENT (9/62)	CAPACITY (9/62)	ACKLEY SURVEY RATING (9/52)
BROADWAY	1956	N.A.	7-9	4.63	1,059	1,050	N.A.
CLINTON PLACE	1955	N.A.	7-9	3.50	1,590	1,600	N.A.
MADISON	1904 1926, 1962	N.A.	7-9	1.22	363	360	N.A.
SEVENTH AVENUE	N.A.	N.A.	7-9	N.A.	744	840	N.A.
WEBSTER	1911 1923	3	7-9	1.19	882	870	703 FAIR
WEST KINNEY	1959	N.A.	7-9	3.50	1,620	1,600	N.A.
HIGH SCHOOLS							
ARTS	1931	4	9-12	N.A.	733	780	680 FAIR
BARRINGER	1897 1930	3	10-12	N.A.	1,560	1,350	600 FAIR
CENTRAL	1911	4	9-12	1.00	1,564	1,314	609 FAIR
EAST SIDE	1910 1926, 1958	4	9-12	N.A.	2,063	1,650	689 FAIR
SOUTH SIDE	1913	3	9-12	N.A.	1,619	1,380	791 GOOD
VAILSBURG	1931 1955, 1957	3	8-11	2.25	1,127	1,000	786 GOOD
WEEQUAHIC	1932 1959	4	9-12	N.A.	2,228	1,860	960 EXCELLENT
WEST SIDE	1925	3	9-12	4.25	1,697	1,230	805 GOOD

TABLE 2 (contd)

SPECIAL SCHOOLS	YR. BUILT AND ADDITIONS	NUMBER OF STORIES	GRADES SERVED	SITE (ACRES)	ENROLLMENT (9/62)	CAPACITY (9/62)	ACKLEY SURVEY RATINGS	+
ALYEA			Mentally Retarded		95	N.A.	N.A.	
BURLINGTON AVENUE	1924	1	Mentally Retarded	0.89	103	N.A.	FAIR	
BOYLAN STREET	1929	2	Physically Handicapped	N.A.	96	N.A.	FAIR	
BRANCH BROOK	1924	1	Physically Handicapped	N.A.	108	N.A.	POOR	
BRUCE STREET	1898 1899	2-3	Physically Handicapped	0.81	148	N.A.	532 POOR	
GIRLS TRADE	1872 1890	3	Mentally Retarded	N.A.	188	N.A.	437 INFERIOR	
MONTGOMERY STREET (BOYS)	1910	3	Mentally Retarded	1.00	453	N.A.	648 FAIR	
SOUTH MARKET STREET (BOYS)	1856	3	Mentally Retarded	1.25	116	N.A.	450 INFERIOR	
WYCLIFF STREET (GIRLS)	1848	2	Mentally Retarded	N.A.	58	N.A.	437 INFERIOR	
WOODLAND AVENUE	1910	2-3	Socially Handicapped	0.75	63	N.A.	N.A.	

SOURCE: School Plant Facilities Report, 1952, For Newark, Prepared by Clarence Ackley and Associates, Newark Public School Enrollments and Capacities, September, 1962, Superintendent of Schools.

N. A. - Not Available

\*As of 9/63 Not in Use

The enrollments in the special education classes are determined by the facilities available, that is, the number of classrooms available in the regular elementary and secondary schools, and the space available in the ten special schools and the one unit of braille classes in the Elliott Street School.

Handicapped children who are not mentally retarded are received from districts outside of Newark on a tuition basis. Eighty school districts send children to Newark to attend special classes for the blind, deaf, orthopedic and cardiac.

#### Parochial Schools

An extensive group of Roman Catholic schools is maintained by the Archdiocese of Newark. These include schools of all categories, from a regional high school drawing upon students throughout the Newark metropolitan area to local parish schools. The schools are located in all parts of Newark and provide education to a sizable number of children.

#### ENROLLMENTS

Total public school enrollments have increased from 60,783 in 1959 to 71,271 in 1963, a 17.3 per cent increase. A major part of the school enrollment increases have not resulted from new home construction in Newark but have been caused by the exodus of older families with few or no children to the suburbs and their replacement by new families with larger numbers of children.

#### Elementary Schools

From 1959 to 1963 elementary school enrollments increased by 7,200 students, a 17.1 per cent increase. Elementary school enrollments were greater by 3.1 per cent in 1960 than in 1959. In September of 1961 they showed an additional increase of 3.6 per cent and in September, 1962, they again showed an increase over the previous year, this time by 5.5 per cent.

### Secondary Schools

As of 1963, enrollments in junior high and senior high school totaled approximately 19,500 students. This figure represents an 18.6 per cent increase from 1959 enrollment figures. From 1960 to 1963 enrollments increased by 9.5 per cent, 1.9 per cent and 4.0 per cent, respectively.

### Special Schools

Enrollments in all special schools and classes within the elementary school system increased from 2,223 in 1959 to 2,457 in 1963, a 10.5 per cent increase.

Table 20 summarizes public school enrollments from 1959 to 1963.

### Parochial Schools

Most of the students not attending Newark's public schools are enrolled in Roman Catholic parochial schools. As of June, 1961, 16,450 students were attending parochial schools in Newark. This represents approximately 20 per cent of the 1961 total school population.

TABLE 3

#### ENROLLMENTS IN THE NEWARK PUBLIC SCHOOL SYSTEM - 1959 to 1963

Year	Elementary Schools	Secondary Schools	Special Classes and Schools	All Schools
1959	42,115	16,445	2,223	60,783
1960	43,435	16,792	2,238	62,465
1961	45,010	18,394	2,354	65,758
1962	47,481	18,743	2,226	68,450
1963	49,315	19,499	2,457	71,271

Source: Enrollment Data - September, 1959 - 1963 Deputy Superintendent of Schools Newark Public School System.



## SEATING CAPACITY

Standards regarding the number of students per classroom have been developed by the Newark Board of Education and the New Jersey Department of Education. These standards are based on the maximum size of classes for a good teaching and learning situation. Thirty pupils per classroom is considered optimum for elementary and secondary schools, while fifty pupils per room (based on two, half day shifts of 25 each) is considered optimum for kindergarten classes.

The September, 1962, seating capacity based on the above standards were 43,350 for elementary schools and 16,884 for secondary schools. September, 1962, enrollment figures exceeded elementary school capacity by 4, 918 and secondary school capacity by 1,973.

## STANDARDS

The following standards were used as a guide in determining the adequacy of the existing educational facilities within Newark.

### Environment

A school site should have quiet surroundings away from railroads, factories, commercial areas, and major roadways.

### Accessibility

Children on their way to school should not cross railroad tracks at grade or major street intersections. If unavoidable, adequate protection should be provided.

The American Public Health Association recommends the following as being the maximum distance that children should be required to walk to school.

Elementary School -- 1/4 to 1/2 mile  
Junior High School -- 3/4 to 1 mile  
Senior High School -- 1 to 1-1/2 miles

The American Public Health Association also recommends that the travel time to school by conveyance should be not greater than 30 minutes. Walking routes to school must be safe, on sidewalk and with a minimum of traffic hazards, especially for elementary and junior high school students.

#### Topography

The school site should be relatively level and suitable for recreation facility development and should have adequate natural drainage.

#### Size of Site

The State Board of Education of New Jersey recommends the following school site sizes:

Elementary School -- 5 acres plus 1 acre for each 100 pupils enrolled,  
Junior High School -- 10 acres plus 1 acre for each 100 pupils enrolled,  
Senior High School -- 20 acres plus 1 acre for each 100 pupils enrolled.

Modification of the state standards for minimum size of school sites has been recommended by the Board of Education as follows:

Elementary Schools - 3 acres  
Junior and Senior High Schools - 5 acres

#### Size of School

The National Education Association recommends the following school size standards.

#### Typical School

	No. of Pupils
Elementary (K-6)	350- 600
Junior High (7-9)	700- 1,500
	1,000- 2,000

#### Seating Capacity

The Newark Board of Education and the New Jersey Department of Education recommend an optimum capacity of 30 pupils per class room for elementary and secondary schools.

#### School Construction - 1963-1964

Since September of 1962, the following school plants have been at various stages of construction, which when completed will provide additional space for approximately 3,000 elementary school students, and 1,000 high school students.

Miller Street School. An addition of 19 classrooms, several special classrooms and facilities for community activities will be provided.

Peshine Avenue School. An addition of 25 classrooms and several special classrooms will be provided.

South Eighth Street School. An addition of 40 classrooms and several special classrooms will be provided. This addition will eventually replace the existing school building.

Quitman Street School This new school will provide 56 classrooms, special classrooms and other facilities necessary to meet recommended school plant standards.

Sarringer High School. Construction of a new high school to replace the existing high school. The new facility will provide approximately 80 classrooms and special classrooms.

#### Newark's School Plan

The plan for Newark's future school needs is a complex and highly intricate undertaking which must take into account many forces presently at work in the City. Some of the important considerations which must be weighed include the relocation of many families resulting from urban renewal and highway programs. While some of the planned urban renewal programs provide additional space for existing school expansion or new school construction, these programs will require many families to relocate to new areas which could not be determined at this time. Furthermore, the New Jersey State Department of Education has requested the City to re-evaluate the public school program with regard to racial balance in the public schools. Finally, enrollments have continued to increase at an accelerated rate therefore requiring additional facilities.

At present the Board of Education has under study a plan for future improvements to the school system in Newark. Since these recommendations have not been formalized, they have not been incorporated into the Newark Master Plan. As soon as the results of the School Board's study will be made available, these plans should be incorporated into the Newark Master Plan.

## RECREATION PLAN

### INTRODUCTION

This section of the Community Facilities Plan is concerned with the facilities for public recreation in the City of Newark. The Recreation Plan includes an inventory of existing recreation facilities, an analysis of these facilities in terms of their type, location and size, and a plan for the development of a complete recreation system.

### ADMINISTRATION

#### The Essex County Park Commission

The Essex County Park Commission provides Newark with recreation facilities ranging from the large regional parks to district parks. On the regional level it has jurisdiction over Eagle Rock and South Mountain Reservation. At the city level the Park Commission maintains Weequahic Park, Branch Brook Park and five smaller parks which serve several districts in Newark.

#### The Department of Public Works

The administration, maintenance and control of recreational facilities in Newark is exercised by the Department of Public Works through two of its operational divisions.

- A. Bureau of Parks and Grounds. The Bureau is responsible for the maintenance of city-owned parks and playgrounds which are not associated with the school system.
- B. The Bureau of Baths. This bureau is responsible for the operation and maintenance of the city's public swimming pools.

### The Newark Board of Education

Practically every public school in Newark has some form of recreation facility. These school-associated recreation facilities are an essential element of Newark's total recreational program. The program is administered by the Board of Education's Recreation Department which is under the supervision of the Superintendent of Schools.

### The Newark Housing Authority

The Newark Housing Authority controls and administers those recreation facilities associated with housing projects. In general, these facilities serve principally the residents of the individual housing project.

### EXISTING RECREATIONAL FACILITIES

Recreational facilities serving Newark have been categorized according to their primary function. This study divides Newark's recreational resources into the following categories:

- a. Regional Parks
- b. City-wide parks
- c. District parks
- d. Neighborhood parks
- e. School facilities
- f. Private facilities

#### Regional Parks

The regional park is a large recreation facility designed to preserve the natural scenic features and characteristics of the area. Its uses include passive recreation areas such as hiking, camping, picnicking and nature study and active recreation areas such as playfields for various sports. To be effective

tive, the regional park or reservation should normally be over 1,000 acres in size. Because of the site requirements the regional parks are usually located well outside of intensively developed areas.

Several regional parks or reservations are available to the residents of Newark. Within an hour's drive from the city are Harriman State Park, Stokes State Forest and the beaches of New York and New Jersey. Closer to the city and more directly contributing to Newark's recreation needs are the two smaller regional parks - Eagle Rock and South Mountain Reservation. Both of these parks are located in the Orange Mountains only four miles west of the city.

At the present time both Eagle Rock and South Mountain Reservation provide a wide variety of facilities including picnic areas, hiking trails and bridle paths. In size, these parks total approximately 2,500 acres.

#### City-Wide Parks

A prime function of a city-wide park is to provide space for outdoor sports, nature trails, open fields and meadows, and when appropriate for such features as band shells and zoos. The secondary function of city-wide parks is to provide the city residents with a frequent opportunity to enjoy natural landscape in contrast to the urban development in the rest of the city. An important consideration for such a city-wide facility is the requirement that it should be readily accessible to the majority of city's residents either by public transportation or by private car.

There are two city-wide parks located in Newark, both of which are owned and operated by the Essex County Park Commission.

Branch Brook Park. Branch Brook Park, located in the northern part of the city, contains a total of approximately 497 acres. Of these, approximately 340 acres lie in Newark, the remainder in Belleville. Two playgrounds are located at the south end of the park and are extensively used. A wide variety of facilities are available in the park for both active and passive recreation including ponds for boating and fishing. Barringer High School is located along the east side of the park and many of the recreational activities in connection with the school

are carried on in this park.

One of the features of Branch Brook Park is a group of green-houses where plants used in the park are raised from seeds and cuttings. A chrysanthemum show is held annually, late in the fall, and in the spring, several thousand Japanese cherry trees attract large crowds to view their striking beauty.

Neequahic Park. Weequahic Park is located in the southern part of the city and contains approximately 311 acres. An 85 acre lake is part of the park, and is used for boating and fishing activities. Other features of the park are: a 9-hole golf course, a large playfield and playground, a trotting-horse track and a grandstand. In addition, the park contains an attractive rose garden.

#### District Parks

The District Parks are intended to serve large residential areas with a wide range of both active and passive facilities. Their service area may cover several neighborhoods and therefore district parks may provide opportunities for specialized recreational activities such as running tracks and football fields. Depending upon the number of people to be served, the size of this type of park varies from 5 to 20 acres. Such parks serve the residential areas within a radius of 1 to 1½ miles. There are five district parks within the city limits of Newark all owned and operated by the Essex County Park Commission.

Independence Park. Independence Park is located in the Iron-bound section of the city in an area of high population density and numerous industrial plants. Independence Park contains approximately 13 acres of land and provides the following facilities: tennis courts, track, playground and playfield, baseball diamonds, comfort stations and field houses.

River Bank Park. River Bank Park is also located in the Iron-bound section of Newark and covers an area of approximately 11 acres. Part of the area lies north of Raymond Boulevard and is not developed for active recreational use. This portion is merely an open strip between the Boulevard and the river. The remainder of the park contains facilities for active recreation for children and adults.

West Side Park. West Side Park is located in the west central part of the city in a densely populated area where there are few recreational facilities. The park covers an area of approximately 31 acres and contains facilities for active sports and lawn games.

Vailsburg Park. Vailsburg Park, located along Oraton Parkway totals approximately 32 acres. This park contains facilities for the enjoyment of active neighborhood recreation such as ball fields and sports areas.

Ivy Hill Park. Ivy Hill Park contains approximately 19 acres lying between the Ivy Hill Sanatorium grounds and the Seton Hall College grounds. While this park is almost entirely within the city limits of Newark, it adjoins the boundary of South Orange and is widely used by South Orange residents.

#### Neighborhood Parks

Neighborhood park facilities include playgrounds, playfields and play or tot lots serving a neighborhood area within a radius of 1/2 mile.

Playfield. A playfield provides facilities for diversified recreation activities for young people of high school age and young adults. A part of the playfield is often set aside for athletics or highly specialized sports such as football or baseball. The other part of the playfield usually provides space for passive recreation. The size of a playfield may range from 5 to 10 acres. A preferred location is adjacent to a junior or senior high school.

Playground. The playground is the chief outdoor play center of the neighborhood and is designed for school children 6 to 15 years of age. Its size varies from 2 to 5 acres and contains areas for playground equipment (swings, slides, etc.), shaded areas for passive recreation and a shelter for arts and crafts. The preferred location is adjacent to an elementary school.

Playlot or Tot Lot. The playlot is a small area generally 2,000 to 5,000 square feet in size, intended primarily for pre-



school age children under their parents supervision. Playlots are usually provided in densely built up neighborhoods where private backyard play space is limited. The playlots may be located in the interior of a city block or they may form a part of a playground. Their service area is considered to be within 1/8 of a mile radius.

At present most of the playfields and playgrounds in Newark are provided by the public school system which is administered by the Board of Education. Some playfields are also located within the District Parks. Essex County Park Commission provides four playfields at Branch Brook Park, two playfields at West Side Park, and one for each of the following: Weequahic Park, Independence Park, River Bank Park, Vailsburg Park and Ivy Hill Park.

In addition to providing play areas for school age children the Board of Education provides facilities and recreation programs for adults as well.

Ornamental and Historical Parks. These parks provide landscaped areas, sitting areas and open space for crowded districts or high density residential neighborhoods. Table lists the major ornamental parks and squares in Newark. The location of these parks are indicated on the recreation plan map.

TABLE 4

MAJOR ORNAMENTAL PARKS AND SQUARES OF THE CITY OF NEWARK - 1964

<u>Name</u>	<u>Size in Acres</u>
Military Park	6.00
Lincoln Park	4.37
Washington Park	3.40
Douglas Park	2.22
Harrison Park	2.38
Hayes Park North	1.24
Schleifer Park	.97
Liberty Park	.85
First Street Park	.72
Thomas Silk Park	.65
Phillips Park	.54
Clinton Park	.49
Vailsburg Park	.48
Edison Park	.35
Mt. Prospect Park	.35
Jackson Park	.34
Berkeley Park	.25
Lombardy Park	.23
Wallace Park	.21

Source: Planning Division of the Newark Central Planning Board

### School Recreational Facilities

School Playfields. There are two playfields located at high schools. West Side High School playfield is located in the west central section of the city and contains approximately three acres of land exclusive of the school building and landscaping. Weesquahic High School playfield is located in the southwestern part of the city and occupies a full block of property with an area of approximately three acres.

The Public School Stadium, located in the northwest part of the city, provides playfield facilities for all secondary schools and is used as the field for intramural sports. Since its facilities are adaptable to other activities, many organizations such as the American Legion, use the field, by permit, for exhibitions and shows when not used for school purposes. This area contains approximately eight acres.

School Playgrounds. The Recreation Department of the Board of Education operates and supervises three types of playground facilities at elementary schools.

Type A Playgrounds. Type A playgrounds are combined playgrounds and community centers. They serve all age groups and are operated on a year around basis. There are 11 such playgrounds, all located and operated in conjunction with elementary schools. They are:

<u>Name</u>	<u>Area in Sq. Ft.</u>
Central Avenue	19,376
Chancellor Avenue	65,900
Ivy Street	40,672
Lafayette	23,000
McKinley	26,880
Morton Street	13,440
Newton Street	26,237
Peshine Avenue	33,700
Charlton Street	19,735
Webster Street	23,244
Wilson Avenue	<u>17,584</u>
Total	309,768

Type B Playgrounds. Type B playgrounds serve children of elementary and junior high school age. Two evenings a week, older youth and adults may participate in the program. There are 12 such playgrounds of which 10 are located adjacent to elementary schools and two in conjunction with junior high schools. These playgrounds are:

<u>Name</u>	<u>Area in Sq. Ft.</u>
Bergen Street	35,460
Cleveland Jr. High	20,192
Elliott Street	16,396
First Avenue	24,800
Fourteenth Avenue	26,046
Garfield	16,290
Hawthorne Avenue	22,321
Madison Avenue	31,385
Oliver Street	33,879
Robert Treat Jr. High	30,241
South Eighth Street	11,000
South Market Street	<u>31,737</u>
Total	299,747

Type C Playgrounds. Type C playgrounds serve pre-school and kindergarten age children, and as such, are primarily playlots with organized play activities. There are nine such playgrounds, all located in conjunction with elementary schools except Montgomery Street which is located at a special school. These facilities are as follows:

<u>Name</u>	<u>Area in Sq. Ft.</u>
Burnet Street	11,852
Camden Street	16,016
Franklin	17,700
Monmouth Street	15,204
Montgomery Street	8,000
South Street	15,600
Speedway Avenue	30,390
Summer Avenue	13,584
Warren Street	<u>19,211</u>
Total	146,557

Recreation Programs. Aside from providing playfield and playground facilities in Newark, the Board of Education also administers an extensive recreation program. The program is comprehensive in scope. It includes arts and crafts, athletics and gymnastics, dancing, dramatics, music, club organizations and special activities such as socials, holiday programs, scouting and hobbies of all kinds.

The program is designed primarily for school children and for teenagers and younger adults in the evenings. A special program for adults is conducted on two evenings a week. City-wide athletic leagues and tournaments for industrial, commercial, banking and insurance firms, as well as neighborhood club and church teams, are conducted in major athletic centers and playfields.

#### Existing Private Recreation Facilities

There are numerous private recreation facilities scattered throughout the city, particularly in the more central areas. The principal private organizations which provide such facilities are: The Y.M.C.A., Y.M.H.A., Y.W.C.A., Boys Clubs, Neighborhood Houses, Salvation Army, Scouting groups and the regular organized recreation activities in connection with churches but which serve mainly their own membership. Indoor recreational facilities at three of the precinct police stations have been adapted for use as neighborhood recreation centers under the sponsorship of the Police and Firemen's Benevolent Association. Supervision is provided by the Police Department.

#### Summary of Existing Recreation Areas

Table 15 summarizes the total recreational facilities located in the city of Newark by district.

#### PARK AND RECREATIONAL STANDARDS

##### Purpose of Standards

A comprehensive recreational plan should be based on a set of recreation standards which will provide a framework for the

TABLE 5

RECREATIONAL FACILITIES BY DISTRICT  
NEWARK, NEW JERSEY

	<u>County Parks</u>		<u>City Parks</u>		<u>Board of Education Playgrounds</u>		<u>Board of Education Playfields</u>		<u>Pools</u>	<u>Total</u>	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No./Acres	No.	Acres
Newark Core	-		12	17.51	8	22.87	-		-	20	40.38
Newark North	-		3	.91	8	6.51	-		1 1.26	12	8.68
Roseville	-		4	1.63	4	2.76	1	8.26	-	9	12.65
Vailsburg	2	50.69	2	.49	4	5.93	-		-	8	58.50
West Side	1	31.36	1	.15	8	5.37	1	3.27	1 1.29	12	40.15
West Market	-		2	1.06	4	3.58	-		-	6	4.64
Clinton Hill	-		1	.12	1	3.83	-		-	2	3.95
Hayes Circle South	-		4	1.35	3	1.75	1	1.68	-	7	4.78
Ironbound	2	23.73	2	.47	7	5.36	1	21.23	1 4.48	13	55.27
Weequahic	-		1	.18	3	3.78	1	3.35	-	7	7.31
Dayton	-		-	-	1	2.43	-		-	1	2.43
Belmont	-		1	.02	3	4.84	-		1 3.32	5	8.18
Totals	5	105.78	33	23.89	57	69.01	5	37.79	4 10.45	104	246.92
Branch Brook Park											337.80
Weequahic Park											311.32
Totals											896.04

Source: Planning Division of the Newark Central Planning Board

long range development of a recreation system in Newark. Since the standards should be developed for the city as a whole, they would apply to all recreation facilities in Newark, covering the facilities administered by the city, the Board of Education and the Essex County Park Commission.

The Division of City Planning after reviewing national recreation standards and other studies of recreational area requirements has determined that these standards could not be applied to Newark. The use of a 6.25 acres per 1,000 standard would result in approximately 17 per cent of the city's total land area being devoted to recreation space. Prohibitive acquisition costs in densely populated areas and the displacement of productive land uses prevent the city from acquiring more sites for recreational use. To meet the demand for additional recreation space and to determine a practical and acceptable set of standards recognizing Newark's difficulty in providing parks and playgrounds in built-up areas, the Division of City Planning has adopted a set of modified standards. The Division recommends that a minimum standard of 3 acres per 1,000 population be used as a guide in calculating future city recreational land needs.

Table 6 indicates the method by which a proportional breakdown in acres for each recreational facility type was developed.

TABLE 6

PROPOSED PHYSICAL RECREATION FACILITY STANDARDS

NEWARK, N. J.

## A. Standards Recommended by the National Recreation Association:

<u>Facility</u>	Per Cent of <u>Total</u>	<u>Acres per 1,000 Persons</u>
Playground	16.0	1.00
Playfield	20.0	1.25
Neighborhood Park	24.0	1.50
City-wide Park	<u>40.0</u>	<u>2.50</u>
	100.0%	6.25

## B. Division of City Planning - Recreation Committee Standard

3 Acres Per 1,000 Persons

## C. Proportional Breakdown in Acres of Each Major Recreation Facility Using an Overall Standard of 3 Acres Per 1,000 Persons:

<u>Facility</u>	<u>Acres Per 1,000 Persons</u> <sup>1</sup>	<u>Acres Needed</u>
Playground	.48	195.84
Playfield	.60	244.80
Neighborhood Park	.72	293.76
City-wide Park	<u>1.20</u>	<u>489.60</u>
	3.00	1,224.00

Source: Division of City Planning

<sup>1</sup> Based on estimated 1963 population of 408,000

Table 7 summarizes the deficiency of recreation facilities, in acres, which exist in each community district of Newark.

TABLE 7

EXISTING DEFICIENCY OF RECREATION FACILITIES BY COMMUNITY DISTRICT  
Newark, N. J.

Community Districts	Approximate 1963 Population	Recreation Standard Based on a Ratio of 3 Acres Per 1,000 Persons	Existing Recreation Facilities (in acres)	Deficiency of Recreation Facilities (in acres)
Belmont	17,400	52.20	8.18	44.02
Clinton Hill	25,300	75.90	3.95	71.26
Dayton	5,400	16.20	2.43	13.77 <sup>1</sup>
Hayes Circle South	22,900	68.70	4.78	63.92
Ironbound	42,700	128.10	55.27	72.83
Newark Core	46,100	138.30	40.38	97.92
Newark North	56,100	168.30	8.68	159.62 <sup>1</sup>
Roseville	29,300	87.90	12.65	75.25 <sup>1</sup>
Vailsbury	39,500	118.50	58.50	60.00
Weequahic	38,700	116.10	7.31	108.79 <sup>1</sup>
West Market	29,000	87.00	4.64	82.36
West Side	55,800	167.40	40.15	127.25
Total	408,200	1,224.00	246.92	976.39
City-wide Parks				- 649.12
Grand Total				327.27

Source: Planning Division, Central Planning Board, Newark, N. J.

<sup>1</sup> Does not include district breakdown for Branch Brook and Weequahic Parks.



At present Newark needs approximately 327 acres of recreation and open space to keep pace with the city's goal of providing three acres of park space for each 1,000 persons. There is also a need to provide a better distribution of parks to serve each neighborhood. Existing recreational facilities are often too distant or otherwise inaccessible in many neighborhood areas.

The most significant deficiency of recreational space exists in the provision of playgrounds and playfields in conjunction with the Newark Public Schools. Most of the existing schools occupy sites which are much smaller than the minimum standards generally accepted by state school planning authorities. There are only a few elementary school sites which consist of more than two acres of land. The problem of land acquisition for the expansion of school sites can be greatly alleviated through the city's extensive Urban Renewal Program.

## RECREATION PLAN

### Introduction

The Urban Renewal Program is at present considering all available methods of increasing the amount of recreational space in Newark. Wherever possible, land is being reserved for playgrounds, play lots, and neighborhood parks within new developments. The city is also participating in the State of New Jersey's Green Acre Program which will provide financial assistance equal to fifty per cent of the acquisition cost of acquiring land to be developed for open space purposes. The section that follows, summarizes the recreation and park proposals for each community district in Newark.

### Newark Core

Old Third Ward Project. This renewal project is located in the geographic center of the city and will provide expanded playground space for Morton, Montgomery, and Charlton Street schools. A new six-acre elementary school has already been constructed as part of this project. In addition, the acquisition of land for a new year-round, multi-functional swimming facility and park financed in part under the New Jersey Green Acre Program is planned for the southern end of the project. This renewal project will add approximately 15 acres of recreational space to the Core Area and greatly enlarge the availability of open space in this high density residential section.

St. Michael's Project. This project is located in the northern section of the Core Area and can provide land for a Botanical Garden. This facility coupled with the existing garden behind the Newark Museum can be directly related to the Newark Colleges Expansion Program. The Botanical Garden proposed as part of the Green Acres Program, will add approximately 14 acres of open green space to this section of the Core Area.

Essex Heights Project. This project just north of the Old Third Ward Project as presently programmed will provide approximately two acres of playground space for Warren Street Elementary School.

Halsey Street Mall. A 50-foot wide mall is recommended which will extend from Market Street to Central Avenue providing pedestrian access from the shopping district to both Military and Washington Parks. This facility will provide approximately four acres of pedestrian walks and landscaped plazas in the heart of the congested Central Business District.

Mid-Town Freeway Park System. It is recommended that consideration should be given for acquiring park land and open green space in conjunction with the proposed construction of the Mid-town Freeway. The New Jersey State Highway Department has proposed the construction of a freeway which would extend basically from McCarter Highway near Branch Brook Park to Weequahic Park, and then would connect with other state and interstate highways. A relatively small widening of the proposed right-of-way width would provide the city with an opportunity of developing a parkway setting which would extend from Branch Brook to Weequahic Park. This facility would provide approximately 20 acres of park and green space serving the West Market, Belmont, Hayes Circle and Core Area of Newark and would provide a dramatic definition to the boundaries of the Core Area.

#### Ironbound

Memorial Stadium. It is recommended that a recreation area of approximately 10 acres be located in the Ironbound Community to replace the facilities now located in Memorial Stadium. Such a sports area would include facilities for a field house, running track, and a baseball and football field. This facility would be predominately used by Newark's senior high schools and civic organizations. This recreation area could be financed in part through the New Jersey's Green Acre Program.

#### Vailsburg

A playground in the central section of Vailsburg in addition to the existing Ivy Hill and Vailsburg District Parks would provide this community with needed recreational space.

Hayes Circle South. Two neighborhood parks are proposed for this area, one at the intersection of Sherman and Frelinghuysen Avenues near Miller Street School covering approximately one acre of land, the other located adjacent to the South Side High School including an area of approximately three acres. Both parks to provide landscaped areas for passive recreation and play areas for pre-school age children.

West Side. Due to the existence of a large 30 acre neighborhood park no additional park facility is recommended for this section of Newark at the present time.

West Market. A 10-acre playground and neighborhood park facility is recommended in the vicinity of South Orange Avenue and Norfolk Street. This facility would provide additional recreational space for Newton Street and Robert Treat Elementary Schools.

Fairmount Renewal Project. This project is in the early planning stages and anticipates providing sites for the expansion of the City Hospital. The City Hospital site will cover approximately eight acres and include at least one acre of open space.

#### Weequahic

Several small play lots are recommended in the western section of this community. Specific sites are not indicated at this time. Additional recreational space will be provided with the expansion of Braham, Hawthorne and Maple Avenue Elementary Schools.

#### Dayton

Due to the size and population of this community and its proximity to Weequahic Park, no additional park facility is recommended for this section of Newark.

#### Clinton Hill

A five-acre neighborhood park is recommended in the vicinity of Seymour Avenue and Hedden Terrace to provide passive recreation and open green space for the Clinton Branch Library, Bergen Street School and the Hebrew Academy of Essex County.

#### Roseville

A small park which would be used for passive recreation purposes is recommended at the triangular intersection of Bloomfield Avenue, Abington Avenue and North 8th street. This park facility is part of Newark's Green Acres Proposal and will be financed in part by the State of New Jersey.

#### North Newark

A riverside park, an eastern extension of Branch Brook Park, and a playground are recommended in this section of Newark. The riverside park would comprise an area of approximately 10 acres and would provide the city with an opportunity of eliminating industrial and general commercial blight along the Passaic River. The Branch Brook Park extension located in the vicinity of Mt. Prospect Avenue would include approximately five acres of open green space and eliminate the existing mixed land uses in this area of Forest Hill. The playground covering two acres of land would occupy the former site of the State Teachers College and provide facilities for young children.

### Acquisition of Park and Recreation Land

At present, Newark does not have an agency or governmental body which can acquire land for the over-all recreational needs of the city. It is therefore recommended that such a department be established with the authority to acquire suitable lands for the recreational development of parks and recreational facilities.

### Summary

The proposed recommendations would add approximately 123 acres of park and recreation land to Newark. These new facilities are located on the Recreation Plan Map. It is anticipated that an additional 204 acres of needed recreation space will be provided by the Newark Board of Education through its School Site Expansion Program. Most elementary and special schools are recommended to expand to approximately five acres, providing almost three acres for play facilities and recreation space. New junior high schools are shown located on approximately 10 acres of land, providing almost seven acres for recreational purposes. Proposed neighborhood parks and play fields were located within each community in the vicinity of existing Senior High Schools to serve as a multi-functional recreational facility. Additional recreation space will also be available through parochial schools and civic organizations.

The acquisition of land for recreational purposes will provide an attractive landscaped setting for many of Newark's public and semi-public buildings and lead to the upgrading of property values in several neighborhoods. The proposed recreation plan, in conjunction with the Landscape and Open Space Controls established in urban renewal projects will provide Newark with a well balanced and adequate park and recreation system.

## PUBLIC BUILDINGS PLAN

Newark's public buildings are related to a great variety of functions - fire and police protection, civic and cultural facilities, and hospitalization. They are necessary and desirable components of an urban way of life and should be properly located and designed to adequately serve all the city's residents. The following section reviews the overall adequacy of these facilities and recommends a plan for their future development.

### PUBLIC LIBRARIES

#### Introduction

Newark's Public Library System is an important cultural, educational and recreational facility which serves persons of all ages. This section of the Public Building Plan will consist of an analysis of the physical characteristics of the existing library buildings, an evaluation of their location and level of service and a plan for future library needs.

#### Administration

The library system is administered by a Library Director under the supervision of a Board of Trustees.

#### Existing Facilities

The Newark Public Library system contains a centrally located main building, a Business Library, which is a department of the Main Library, located in the business district, eight neighborhood branch libraries, two sub-branch libraries and a bookmobile. The public library system also provides book service to nine hospitals in the city and lends books to public schools through established school libraries and classroom collections.

The physical characteristics of the main library, business library and eight neighborhood branch libraries are summarized in table 18.

TABLE 8

## CHARACTERISTICS OF NEWARK PUBLIC LIBRARY SYSTEM, 1963

Library Facility	Year Built	Number of Floors	Type of Construction	Number of Books Shelved	Circulation 1962	First Floor Area (sq. ft.)	General Structural Condition
Main	1901	4	Brick and Limestone	866,800	1,222,900	20,000	Good
Branch Brook	1911	2	Brick	15,000	63,000	300	Fair
Clinton	1925	2	Brick	22,000	91,800	3,000	Good
North End	1930	2	Brick	19,300	88,400	2,600	Good
Roseville	1924	2	Brick	19,500	94,200	2,600	Good
Springfield	1923	2	Brick	19,000	88,500	3,200	Fair
Vailsburg	1927	2	Brick	21,700	98,700	3,000	Good
Van Buren	1923	2	Brick	23,000	102,100	3,000	Good
Weequahic	1929	2	Brick	32,500	155,600	2,700	Good
Business	1927	2	Brick and Limestone	9,000	11,300	2,300	Good

Source: Mr. J. Bryan, Director of the Newark Public Library System

Note: All numbers are rounded to nearest hundred.

Panted building

Other Library Facilities. Three additional facilities consisting of two sub-branches and a bookmobile are provided by the library system to serve those areas somewhat distant from the present neighborhood branches.

Mount Vernon. This sub-branch is located in the Vaileburg section of Newark and is part of Mount Vernon Elementary School. This facility has a book stock of approximately 12,200 and in 1962 had a circulation of 71,500 volumes.

Dayton. This facility is located in the Dayton section of Newark and is part of Dayton Elementary School. This sub-branch has a book stock of approximately 6,300 and in 1962 had a circulation of 29,200 volumes.

Bookmobile. The bookmobile operates on a five day schedule visiting those parts of the city not adequately served with library facilities. The bookmobile van has a book stock of approximately 3,500 and in 1962 had a circulation of 134,000 volumes.

#### Standards

In today's modern library system, space is not only needed for the shelving and storage of books and other printed material, but also for special reading and reference rooms, for separate children and adult departments and for other special purposes such as meeting rooms, lecture, exhibit and auditorium areas.

The recommended standards for library facilities are as follows:

##### Main Library.

- a. Be centrally located
- b. Have convenient access by public transportation
- c. Be adjacent to the Central Business District
- d. Have convenient access by walking or public transit from primary and secondary schools



Branch Libraries. To provide adequate service, the various neighborhood branch libraries should have, as a minimum, separate children's and adults' departments and should shelve at least 35,000 volumes and:

- a. Serve an area no larger than 1/2 to 3/4 of a mile in radius
- b. Be located adjacent to local shopping centers where many persons tend to congregate
- c. Be within easy walking distance of neighboring schools
- d. Should serve a population of no more than 50,000 people

Parking Space. The provision of convenient off-street parking space is considered a desirable feature of any building which is widely used by the public.

Table 9 summarizes the findings of the University of Illinois Library School as to recommended library building standards.

TABLE 9

LIBRARY STANDARDS

Population	Book Stock	Circulation	Total	Desirable
	Vols. Per Capita	Vols. Per Capita	Sq. Ft. Per Capita	1st. Floor and Ground Fg. Sq. Ft. Per Capita
200,000 to 500,000	1.5	7	.375	.1 - .125

Source: University of Illinois Library School Study on Public Library Buildings, 1956

Analysis

At present the North Roseville, West Side and Lincoln Park sections of Newark are not adequately served with branch library facilities, and many existing branch libraries are in

need of additional book shelving space, book storage areas, and off-street parking facilities.

Main Library. The main library is the second largest reference and research center in the state and serves a population of approximately four and a half million people. Additional book and seating space is necessary if the library is to continue its regional function. In order to finance these improvements, a general revenue base should be explored.

The main library building is in good physical condition. The interior and exterior are well cared for and the building is an asset to the community.

#### Branch Libraries.

Springfield Branch. The present Springfield branch library renders only limited service to the population of this neighborhood. Attendance has declined and evening hours have been discontinued. Shifts in population to housing projects to the south and east and increased industrialization of the area has limited the library's present usefulness.

Branch Brook Branch. Branch Brook library, which is operating from a leased building is soon to be vacated. The lack of library facilities in this section of north Newark would result in an overcrowding of the Main Library and would deprive many students from Barringer High School and Essex Catholic High School from using a convenient neighborhood library facility.

Clinton Branch. The Clinton branch library is in need of additional space for meeting, conference and study rooms. The Library Director is applying for a demonstration research grant in conjunction with the Bergen Street School to provide funds for the construction of an addition to the existing branch library.

Lincoln Park Branch. At present the area surrounding Lincoln Park is not adequately served with convenient library facilities. This area of Newark is developing rapidly. Two high-density apartment developments are likely to increase the demand for a new branch library

building in this section of Newark.

#### Plan

Based on the analysis of library facilities and location standards it is recommended that three modern, air-conditioned branch libraries be constructed, providing the following facilities: space for 100 readers, 50,000 library books, off-street parking and loading facilities and community meeting rooms.

- A new library facility should replace the existing Springfield branch and be centrally located to adequately serve the West Side West, Market and Belmont sections of Newark. This facility should be located in the general area of Springfield between Bergen and Belmont Avenues.
- A new library facility should replace the existing Branch Brook branch and be centrally located to adequately serve the North Roseville section of Newark. This facility should be located in the general area of Bloomfield and Clifton Avenues.
- A new branch library should be constructed in the Lincoln Park section of Newark. This facility should be located in the general area of Broad Street and Clinton Avenue.

## POLICE FACILITIES

### Introduction

The primary functions charged to the Newark Police Department are the enforcement of all laws and ordinances, the prevention of crime, the preservation of the public peace, the protection of life and property, the detection and arrest of criminals and the recovery of stolen property.

The purpose of this section of the public buildings plan is to evaluate the condition and distribution of the city's police facilities and to plan for their improvement.

### Administration

The Police Department is under the supervision of a Director who is responsible for the administration and enforcement of all rules and regulations and the control, disposition and discipline of the Department. The responsibility for the supervision of the Police Department's Patrol and Detective Divisions and all line functions are held by the Chief of Police.

### Organization

The Police Department is divided into five major Divisions; the Administrative Division, the Detective Division, the Investigation Division, the Patrol Division and the Traffic Division.

### Existing Facilities

Police Headquarters - Police Headquarters is located adjacent to City Hall between Franklin and Green Streets. The building was originally constructed as an office building in 1916, and was converted into the present police headquarters. The structure is of brick and stone construction and is four stories high. Police Headquarters Building houses the following police functions:

The administrative offices of the Detective, Investigation, Patrol, Traffic and Administrative Divisions; office of the Police Director, Chief of Police, Business, Public Relations, Planning and Research, Inspection, Polygraph and Surgeon; Identification, Photograph Central Communications, I.B.M., and Criminal Records Rooms; and a Cell Block.

First Precinct - The First Police Precinct is located on Washington and Court Streets. The present building was constructed in 1908 and is of brick and limestone construction, three stories high. The building houses the following police functions: police offices, administrative offices, a court room, cell blocks, a business and assembly room, traffic record room, school crossing guards section and locker and storage facilities. The precinct also includes a garage for storage of a patrol wagon, station wagon, signal truck and motorcycles.

Second Precinct - The second police precinct is located on Orange Street and Sixth Street. The building was constructed in 1903. The structure is of brick construction and is three stories high. The building houses the following police functions: police offices, Youth Aid Bureau Offices, Police Athletic League, gymnasium, a cell block, a business and assembly room, and locker and storage facilities. Other facilities include a garage and stable.

Third Precinct - The Third Police Precinct is located on Market and Reaves Street and is over 50 years old. The building is of brick construction and is two stories high. The precinct houses the following facilities: assembly and business rooms, police office, a cell block, various police rooms, and storage and maintenance rooms.

Fourth Precinct - The Fourth Police Precinct is located on Seventeenth Avenue and Livingston Street and was built in 1904. The building is of brick construction and is three stories high. The precinct houses the following facilities: police offices, an assembly room, a gymnasium, various police rooms, and storage and maintenance rooms. Other facilities include a garage and stable.

Fifth Precinct - The Fifth Police Precinct is located on West Bigelow and Hunterdon Streets and was built in 1912. The building is of brick construction and is three stories high. The precinct houses the following facilities: police offices, assembly room, Police Athletic League, activity rooms, various police rooms, and storage and maintenance rooms. Other facilities include a garage.

Emergency Bureau - The Emergency Bureau is located at 77 Academy Street and was built in 1918. The building is of brick and stone construction and is two stories high. Facilities include: a lecture hall, emergency equipment room, police offices, a library, and storage and maintenance rooms.

Police Academy - The Police Academy is located at: 1008 - 18th Avenue and was built in 1931. The building was originally used as a fire house and is of stone construction, three stories high. Facilities include: a gymnasium, handball court, lecture hall, chemical laboratory, ballistics room, physical instruction room, a gun room, ammunition and firearms vaults, various police rooms and storage facilities.

Table 30 summarizes the existing physical facilities of the Police Department:

TABLE 2

POLICE FACILITIES, 1963  
NEWARK, NEW JERSEY

Facility	Year	No. of Stories	Ground Floor Area (sq.ft.)	Area of Site (sq.ft.)	Capacity Of Garages (no. vehicles)	Off- Street Parking Spaces
Headquarters	1916	4	7,081	28,498	0	65
1st Precinct	1908	3	4,052	13,566	6	6
2nd Precinct	1903	2	3,360	12,650	2	6
3rd Precinct	N.A.	2	2,356	9,975	2	12
4th Precinct	1904	2	3,586	8,300	2	6
5th Precinct	1912	3	3,360	14,850	4	6
Emergency Bureau	1918	2	4,176	4,176	6	6
Police Academy	1931	3	5,624	N.A.	6	4

N.A. Not Available

Source: Survey conducted by Division of City Planning, Newark,  
 New Jersey.

### Analysis

The existing Police Precinct Buildings are not providing adequate facilities for the most efficient operation of the Police Department. The judicial function of the courts within many of the precincts has been centralized, and adequate garage and off-street parking facilities are needed. Probably the most significant deficiency in the functioning of the police operation is the decentralization of Police Departments. Authoritative sources on police administration point out the following disadvantages of district or precinct stations:

1. Planning, directing, coordinating, and controlling police operations are made more complicated.
2. The control of special divisions over members assigned to district stations is weakened.
3. Efforts to tighten this weakened control jeopardize the authority the district commander must have if he is to be held responsible for conditions and police operations in his district.
4. The transmission of information, instructions and records, and the custody and transfer of prisoners, property, and evidence is made more complicated.
5. District stations are costly; the site and building with its communications, office, jail, and motor equipment require a large capital investment; the operation of the station necessitates additional personnel, utility, and other operating expenditures.
6. District stations, by their easy availability and convenience of location, tend to increase the total amount of wasted time that seems inevitable in any police office. They provide opportunities for both official and unofficial persons to pass the time of day, thus wasting expensive police time and in many instances exerting even more unwholesome influences on the police.



The centralization of police facilities in Newark will provide the following advantages:

1. Centralized operations will save the city nearly an estimated \$3.5 million in capital investment for new precincts within the next six years, and will return to the ratable rolls the sites of the existing precincts, in addition to reducing operating and maintenance costs of the department.
2. The savings derived by the gradual abandonment of precinct stations should provide added incentive to the construction of a new and adequate police headquarters equipped with all the modern devices necessary for efficient operation.
3. A program of police facilities centralization will help to modernize the department and provide up-to-date facilities to cope with the pressing demands made on police protection.

#### Plan

It is recommended that a new Headquarters Building be constructed in the Core Area which will permit a centralization of all police functions. A result of such a new police facility would make possible the elimination of all local precinct station houses and increase the coordination of a number of interdependent operations such as the Police Academy, the Crime Laboratory, the Emergency Bureau and the Traffic Division.

It is further recommended that a parking garage be provided adjacent to the new Police Headquarters Building to provide adequate off-street parking facilities for both police employees and visitors.

## FIRE FACILITIES

### Introduction

Public fire fighting activities in Newark are carried out by the Fire Department. The fire stations, apparatus and men of this department are organized into five operating battalions consisting of 41 fire fighting companies. These battalions and companies respond to fires in the various sections of the city according to a definite prearranged pattern.

### Administration

The Newark Fire Department was organized in 1889 as part of the Department of Public Safety. In 1954, a separate fire department was created under the supervision of a Chief Engineer and Director. Their responsibilities include the coordination and control of the following sections:

Fire Fighting Division - This division operates the engine, ladder, rescue, searchlight, salvage, and fire boat companies.

Fire Alarm and Radio Division - This division is charged with the construction, installation, testing and maintenance of the Department's alarm system. It also supervises the Department's radio system and is responsible for the reception and sounding of fire alarms.

Fire Prevention Bureau - The Fire Prevention Bureau was formed in 1962, and is responsible for the coordination and control of the following three bureaus:

Bureau of Combustibles - This Bureau enforces all provisions of the Municipal Fire Prevention Code. Daily inspections of all types of buildings are made by Bureau members to eliminate fire hazards and to act upon code violations.

Fire Records Bureau - This Bureau is responsible for the investigation and compilation of fire losses throughout the city.

Arson Bureau - All fires and fire alarms of which the cause is unknown are investigated by the Arson Bureau. Official findings are forwarded to the Essex County Prosecutor's office for their attention.

Training Academy - The academy operates on a year round basis and provides instruction for new firemen and members of fire brigades from local industry and hospitals, in fire fighting procedures. In addition, periodic retraining is available for firemen and officers.

Salvage Company - Two salvage companies have the task of protecting furnishings and equipment during fires. Members of these companies respond to all alarms and enter the building to cover or remove furnishings where possible. This prevents damage due to flame or water.

#### Existing Facilities

Apparatus and Equipment Companies - There are twenty-five engine, one fireboat, twelve ladder, one rescue, two salvage and one flood-light company in service in twenty-seven stations.

Pumpers - Thirty-five pumpers; twenty-two 1,000 G.P.M., five 750 G.P.M., and eight 500 G.P.M. pumpers are in service.

Fireboats - There is one fireboat in service, originally built for the United States Coast Guard, which was purchased in 1946. A new 4,000 G.P.M. fireboat is scheduled for delivery in July, 1964.

Ladder Trucks - There are twelve aerial ladder trucks in service. The aerial ladders on ten trucks are hydraulically raised, and two are spring-raised. Two of the aerial ladders are wood and the remainder are metal. The ladder trucks carry in addition to the aerial ladder, eight to eleven other ladders including 45- and 35-foot extension ladders. Each truck is equipped with a ladder pipe.

Hose Wagons - There are ten hose wagons in service, each being equipped with a mounted turret nozzle. Two are 750 G.P.M. pumpers with 500-gallon tanks; the remainder are 500 G.P.M. pumpers with 250-gallon tanks.

There are 10 hose wagons in service for fire fighting in the city.

Rescue Trucks - One rescue truck is in service and is equipped with a wide variety of emergency equipment including forcible entry tools, oxy-acetylene cutting equipment, portable electric generators, portable floodlights, first aid equipment, and breathing apparatus.

Crash Truck - One crash truck is in service at Station 23. The truck is equipped with a 630-gallon booster tank, a 46-gallon liquid foam tank, a built-in proportioner, and eight 50-pound bottles of carbon dioxide supplying a 150-foot reel of special hose. The crash truck is used in response to the airport and is used for truck and automobile fires on the heavily travelled highways.

Floodlight Trucks - One floodlight truck is in service and is manned by one man at all times. It is equipped with a 7½ kw. fixed electric generator, ten 250 to 1,000 watt floodlights, one 1,500 watt spotlight, and 1,100 feet of cable in assorted lengths. The lights are mounted on the truck but may be taken off and used on provided portable stands. Response is made to all multiple alarms and special calls.

Salvage Trucks - There are two salvage trucks in service, both of which have regular salvage bodies and respond to predetermined areas of the city.

Fire Stations - The effectiveness of the various fire fighting companies is in part dependent upon the physical adequacy and location of the existing fire stations. Station locations determine the pattern of response to fire calls throughout the city.

Fire Station Inventory - Newark's fire stations have been constructed during the last 75 years; ten were built prior to 1900, ten others prior to 1913, and only three stations have been constructed since 1925. The average age of the fire stations is over 40 years old. The buildings are predominantly two stories in height, of frame or brick and wood non-fireproof construction. The table that follows is an inventory of Newark's fire stations in terms of location, age and general condition of structure.

Fire Alarm System - Fire alarms are received by the Fire Alarm Bureau and then relayed to appropriate emergency forces. The maintenance of a separate "hazardproof" alarm system is considered essential for emergency use.

Fire Alarm Facilities - The fire alarm headquarters is located on the fourth floor of the fireproof City Hall building. The system uses manually operated equipment consisting of a switchboard, relay board, punch registers for receiving telegraph alarms and a private branch switchboard. In addition, a separate radio system with receiving and transmitting facilities is used by the Fire Department.

Alarm Box Facilities - There are 1,114 alarm boxes distributed throughout the city; 924 of these boxes are city-owned, with the remainder being privately owned. The alarm boxes are mounted predominantly on wooden utility poles or metal pedestals, and when the handle of an alarm box is pulled, a series of telegraphic code impulses are transmitted to alarm headquarters.

Maintenance and Repair Facilities - Major repair and maintenance of all Fire Department vehicles is performed at the Centralized Bureau of Motors repair shop. Minor maintenance care is provided at the Department of Public Safety's repair shop.

TABLE 11

FIRE STATION INVENTORYNewark, N. J.

No.	Fire Station Companies		Year		General Condition of Structure
	House	Location	Built	Age	
1.	Engine 1 (HV) Ladder 1 (HV)	Mulberry & Lafayette Sts.	1907	36	Poor
2.	Engine 2 (HV)	Center St. & McCarter Highway	1896	67	Fair
3.	Engine 4 (HV) Ladder 2 (HV)	High St. Between James and Orange Streets	1929	14	Fair
4.	Engine 5 Salvage 1	Congress Street near Ferry St.	1904	56	Fair
5.	Engine 6 (HV)	Springfield Ave. and Hunterdon St.	1889	74	Poor
6.	Engine 7 Ladder 3 (HV)	W. Market and Warren Streets	1923	40	Good
7.	Engine 8 (HV)	Ferry and Fillmore Streets	1893	76	Good
8.	Engine 9 (HV)	Summer Ave., & Kearny Street	1913	50	Fair
9.	Engine 10 (HV)	Sherman Avenue & Astor Street	1875	68	Very Poor
10.	Engine 11 Ladder 11	Central Avenue and Ninth Street	1888	75	Poor
11.	Engine 12 Ladder 5 Salvage 2	Belmont Avenue near Waverly Ave.	1898	65	Poor

TABLE 11  
(Page 2)

No.	Fire Station Companies Housed	Location	Year Built	Age of	General Condition Structure
12.	Engine 13	Summer Avenue and Halleck Street	1894	69	Good
13.	Engine 14	Vasey and McWhorter Sts.	1898	85	Good
14.	Engine 15 Ladder 7	Park Avenue and Sixth Street	1892	71	Poor
15.	Engine 16 (HV) Ladder 8 (HV)	Ferry and Brill Streets	1908	86	Fair
16.	Engine 17	Clinton Place and Runyon Street	1905	88	Good
17.	Engine 18 Ladder 9	Avon Avenue and Thirteenth Street	1911	83	Fair
18.	Engine 19 (HV)	Frelinghuysen & Meeker Avenues	1905	88	Fair
19.	Engine 20 (HV)	Prince St. between South Orange and Springfield Avenues	1906	87	Fair
20.	Engine 21 Ladder 12 Engine 26	Sanford Ave. and Palm Street	1918	45	Good
*21.	Engine 22 (HV) Floodlight 1-2	Mew and Colden Streets	1908	88	Good
22.	Engine 23 Rescue 1	Mt. Prospect Ave. near Sixth Avenue	1911	53	Good
23.	Engine 27 Ladder 4 Crash Truck	Elm Road & Chestnut St.	1917	46	Good

TABLE 11  
(Page 3)

No.	Fire Station Companies	Location	Year Built	Age	General Condition of Structure
24.	Engine 28	North Sixth St. between Davenport and Delavan Avenues	1921	42	Good
25.	Engine 29 Ladder 10	Bergen Street & Lehigh Avenue	1922	41	Poor
26.	Fire Boat 1	Passaic River, foot of Centre Street	1940	18	Very Good
27.	Engine 31	Terminal & South Dock Streets	1949	14	Good
*28.	Engine 35				Poor
29.	Ladder 6 (HV)	Broadway and Harbert Place	1903	69	Poor
*30.	Salvage 1-3	Washington St. between Market & Bank Streets	1896	67	Very Poor

Source: Newark Fire Location Survey Report, 1956, National Board  
of Fire Underwriters Report for Newark, 1952.

- \* Fire Stations 21, 28 and 30 have been abandoned by the  
Fire Department.
- Engine Company Numbers 3, 22, 23 and 31 have been taken out  
of service by the Fire Department.

- 1- Bureau of Municipal Research Evaluation
- 2- Relocated to a Special Services Company at 56 Prospect St
- 3- Relocated to Fire Station 4

(HV) High Value District



### Standards

Standards set by the National Board of Fire Underwriters for a city such as Newark require the following:

High Value Districts - A pumper company should be within three-fourths of a mile distance from any point in this district. A ladder company should be within one mile of any point within this district.

Closely Built Residential - A pumper company should be within one and one-half miles of any point in this area and a ladder company within two miles.

Areas of Scattered Buildings - A pumper and ladder company should be within three miles of this type of development.

### Analysis

Newark presently exceeds the equipment location standards set by the National Board of Fire Underwriters. Few areas are covered by less than two or three engine companies and in some areas as many as six and seven engine companies are within recommended response distances. Twenty-two engine companies are within three miles running distance of Broad and Market Streets, the center of the High Value District.

In evaluating the location of fire stations, consideration must be given to factors other than distance. High density residential development, industrial development, numerous commercial areas and many old closely built frame residential structures dictate the location of fire facilities.

### Plan

The proposed plan is aimed at correcting those major deficiencies that affect the location of fire stations and their overall physical condition. The program will reduce the number of stations in operation by six. However, a total of fifteen stations in all are recommended to be relocated, replaced or eliminated by the construction of nine new buildings.

TABLE 12

FIRE STATION PLAN<sup>1</sup>

Station Number	Companies	Year Built	Disposition <sup>2</sup> of Station
9	Engine 10	1875	Replace
2	Engine 2	1896	Relocate
7	Engine 8	1893	Relocate
11	Engine 12 Ladder 5 Salvage 2	1890	Relocate
12	Engine 13	1894	Relocate
17	Engine 18 Ladder 9	1911	Relocate
20	Engine 26 Engine 21 Ladder 12	1912	Relocate
26	Salvage 1	1896	Relocate
28	Ladder 6	1903	Relocate
21	Engine 22 Floodlight 1	1903	Relocate
4	Engine 5 Salvage 1	1904	Eliminate
8	Engine 6	1889	Eliminate
16	Engine 11 Ladder 11	1894	Eliminate
23	Engine 23 Rescue 1	1911	Eliminate
25	Engine 35		Eliminate

Source: Newark Fire Location Survey Report, 1956, Bureau of Municipal Research.

1 - Bureau of Municipal Research Recommendations.

2 - Disposition of Fire Station is located on the Fire Station Plan Map.

## HEALTH FACILITIES

Newark's health facilities consist of city hospital, city nursing home and city dispensary as well as many private facilities.

### Administration

The Department of Hospitals and Institutions is responsible for the Administration of the City Hospital, Ivy Haven Nursing Home and numerous clinics throughout the city, while the Department of Health and Welfare is responsible for the administration of the City Dispensary and a General Public Health Program for Newark.

### Existing Public Facilities

City Hospital City Hospital formally called Martland Medical Center is located on Bergen Street and 12th Avenue and is a modern 17-story general hospital operated by the city for the medical and surgical care of the indigent sick and emergency cases. The hospital provides 780 beds and has 52 bassinets for infants.

Ivy Haven Nursing Home Ivy Haven Nursing Home is located on Irvington Avenue in the Ivy Hill Section of Newark. Originally, Ivy Haven Nursing Home was operated as the Newark City Alms House. It was established to place the needy of all ages, suffering from all types of ailments under the proper medical supervision and care. The Nursing Home was constructed in 1916 and consists of a cluster of nine buildings. Through reconstruction and additions the home now provides 252 beds for long-term patients.

Reorganized and merged with facilities of the former convalescent hospital, today's Ivy Haven Nursing Home is fully equipped and is an accredited medical institution capable of caring for the chronically ill, aged, and convalescent patients.

City Dispensary The City Dispensary provides medical care, treatments and medication without charge to its medically indigent and relief clients. Home medical care is also provided through a staff of physicians who volunteer to be on call to render such service, as well as by the Visiting Nurse Association. Prescriptions are also filled for patients treated at the Newark City Hospital and other hospitals in Newark, after clearance with the City's Social Service Department. In addition medications, biologicals, and medical supplies are distributed by the Dispensary to parochial schools, child hygiene stations and other school centers.

### Existing Private Facilities

#### United Hospitals of Newark

The following four hospitals are part of the United Hospitals of Newark Organization:

Presbyterian Hospital Presbyterian Hospital is located on 9th Avenue and 9th Street in the West Side section of Newark. The hospital provides medical care in gynecology, obstetrics, pediatrics as well as general medical and surgical facilities. As of 1958, Presbyterian Hospital had a bed capacity of 286 and an average occupancy level of 94.7 per cent of capacity.

Babies Hospital Babies Hospital is located on Roseville Avenue and Market Street in the West Market Section of Newark. Babies Hospital specializes in pediatrics. As of 1958, the Hospital had a bed capacity of 72 and an average daily capacity level of 73.6 per cent of capacity.

Crippled Children's Hospital Crippled Children's Hospital is located on Park and Clifton Avenues in the north Newark section of the city. The hospital is essentially an orthopedic hospital but provides surgical facilities and pediatric care as well. As of 1958, the hospital had a bed capacity of 88 and an average daily occupancy level of 90.9 percent of capacity.

Eye and Ear Hospital. Eye and Ear Hospital is located on Central Avenue and Plane Street in downtown Newark. The hospital specializes in neurosurgery and general surgical treatment. In 1958, the hospital had a bed capacity of 55 and an average daily occupancy level of 92.7 percent of capacity.

Other Hospitals As of 1961 eight other hospitals were located within the City of Newark providing space for approximately 2,400 beds. These include Beth Israel, American Legion, St. Michaels, St. Barnabas, Columbus, St. James, Doctors and Cahill Hospitals. St. Barnabas Hospital however, is in the process of being relocated and as a result approximately 230 beds will be eliminated from use within Newark.

#### Evaluation of Existing Health Facilities

The demand for community-wide planning of hospital facilities and services have grown significantly in the last few decades. Such planning has been accelerated by the growing volume and diversity of services, the urgent need for construction of new buildings and overdue rehabilitation and replacement of existing plant and equipment. Newark is faced today with these problems and needs. The continuing shift of population to the suburbs, the influx of new people into Newark, the rapid change in community composition have all brought additional demands on city health and medical facilities.

The existing facilities of city hospitals are in many respects inadequate to provide the growing services required to meet community needs. The limitations are primarily concerned with space and the lack of medical specialists to provide the increasing array of medical services required to keep pace with progress in the field of medical science.

#### HEALTH FACILITIES PLAN

Presentations made by six hospitals to the Hospital and Health Council of Newark indicated that plans for new construction and rehabilitation of their existing plants would require approximately \$47 million in capital financing. Completion of the projected Capital Improvement Program would add approximately 1,700 beds, replace and renovate existing beds, and provide for the modernization and expansion of present facilities. Most of the proposed improvement programs are related to the general hospital service, with limited provision for psychiatry and long term care. Table 13 summarizes the projected costs for these hospitals.

TABLE 13  
PROPOSED HOSPITAL CONSTRUCTION  
AND REHABILITATION PROGRAM  
NEWARK, NEW JERSEY, 1961<sup>1</sup>

Hospital	Estimated Cost
American Legion	\$ 2,575,000
Beth Israel	5,781,000
Cahill	N.A.
Columbus	3,500,000
Doctors	N.A.
St. James	5,000,000
St. Michaels	11,250,000
United Hospitals	14,000,000
City Hospitals and Institutions <sup>2</sup>	479,000
<b>TOTALS</b>	<b>\$47,396,000</b>

N.A. Not Available

1 As submitted by Hospitals.

2 As part of Capital Improvement Program from 1958-1969.

Source: Hospital and Health Council of Newark Report, December, 1961

It is recommended, with the full agreement and participation of the various hospitals serving Newark, that a coordinated area-wide study be undertaken. This study should analyze the existing health and medical facilities and services which are available to area residents and project future hospital needs for Newark.

## PUBLIC UTILITIES PLAN

An important factor influencing new development is the existence of utilities to meet the needs of new construction and expansion. This section of the community facilities study analyzes existing utilities in relation to present and future development needs. The analysis of utilities include a review of past engineering studies and recommendations regarding Newark's water supply and distribution system; refuse collection and disposal system; and sanitary and storm sewerage system.

### WATER SUPPLY AND DISTRIBUTION

#### Introduction

The water distribution system serving the city is owned and operated by Newark. The two major sources of water supplying Newark are from the Pequannock Watershed, purchased in 1900, and the Wanaque Watershed purchased by Newark with several other communities in 1930.

#### Administration

The Division of Water Supply which is part of the Department of Public Works is responsible for the operation and maintenance of all reservoirs, aqueducts, distribution mains, hydrants, valves and any other structure or facilities used to supply water to the city and nearby communities who purchase Newark water.

#### Existing Facilities

The 1952 National Board of Fire Underwriters report on Newark's water system and information received from the Public Works Department were the basic source of data for the following discussion of Newark's existing water supply and distribution system.

Supply System - The high level supply comes from a group of impounding reservoirs storing about 14.4 billion gallons in the Pequannock Watershed area. This watershed is located about 22 miles northwest of the city and is owned and operated solely by Newark. The estimated safe yield of this supply is 58.7 million gallons a day.

The low level supply comes from the Wanaque Reservoir with a storage capacity of 29.5 billion gallons, and supplemented with water diverted from the Ramapo River to make Newark's share of the safe yield 49.0 million gallons a day. This Wanaque Watershed area is located 21 miles northwest of the city and is also adjacent to the Pequannock Watershed. It is operated by the North Jersey District Water Supply Commission.

Distribution System - Water from the Wanaque Watershed is supplied by gravity to the distribution reservoir at Belleville. Water from the Pequannock Watershed is delivered by gravity to the distribution reservoir at Cedar Grove which in turn supplies by gravity the South Orange Avenue Reservoir and if necessary the Belleville Reservoir.

Table 1 lists the impounding and distribution reservoirs serving Newark and indicates the year built, elevation of the reservoir and capacity.

TABLE 14

RESERVOIRS SERVING NEWARK AND VICINITY, 1961

<u>Reservoirs</u>	<u>Year Built</u>	<u>Elevation (Ft. Above Sea Level)</u>	<u>Capacity (In Million Gal.)</u>
<u>Storage</u>			
Oak Ridge	1889	846	3,895
Clinton	1889	9,922	3,518
Canistear	1892	1,086	2,407
Charlotteburg	1961	737	2,964
Echo Lake	1889	894	1,678
Macopin	1889	583	32
Wanaque Balancing Reservoir	1930	258	35
<u>Distribution</u>			
Belleville	1869	165	14
Cedar Grove	1904	405	675
South Orange	1871	236	9

Source: National Board of Fire Underwriters report, Newark, New Jersey, 1952 and information supplied by the Department of Public Works.



Service Lines - Water from the three distributing reservoirs is channeled through five service lines varying in size from 24 inches at South Orange Avenue Reservoir to a 60 inch at Cedar Grove Reservoir.

Pressure - Pressure ranges from 40 to 130 pounds per square inch in the general purpose supply and from 100 to 160 pounds per square inch in the special high pressure supply for fire fighting.

Mains - The Newark Water Supply System has 77 miles of supply lines and 495 miles of distribution mains varying from 4 to 42 inches. There are 32 miles of high pressure mains, 6 to 30 inches in diameter. The mains are predominantly tar coated cast iron or cement lined cast iron, the latter being used since 1930.

Hydrants - The number of hydrants in service in 1962 were 4,628 low pressure and 404 high pressure hydrants.

Hydrants are generally located near street intersections with intermediate hydrants in long blocks. Locations are determined by the Division of Water Supply.

#### Water Consumption

The average daily delivery of water to Newark, measured at the principal supply mains indicated an average usage of 78.6 million gallons a day or approximately 194 gallons per capita for 1962.

#### Analysis

Quantity - Reservoirs are well situated at elevations which can supply the city almost completely by gravity. Water storage capacities and sources of supply are now fully developed and can be expanded to serve future needs.

The Round Valley development is expected to supply Newark with an additional 10 million gallons daily when complete.

Quality - The water supplied meets United States Public Health standards for drinking purposes.

Fire Fighting - Fire fighting requires high rates of flow and should therefore govern the size of mains, pumps and other facilities. The National Board of Fire Underwriters has conducted tests which indicate that the quantities and pressure of water available for fire fighting in Newark are adequate.

## REFUSE COLLECTION AND DISPOSAL

### Introduction

The many activities in Newark daily produce a large quantity of waste material or refuse which has to be disposed of by the municipality. Since public health is involved, it is the responsibility of the City of Newark to regulate the handling, storage and disposal of these wastes.

### Administration

The Division of Sanitation of the Department of Public Works is responsible for the collection and disposal of refuse.

### Existing System

Collection - The Division of Sanitation has approximately 50 trucks available to collect refuse from 17 collection districts. Collections are made usually two to three times a week depending on the density of the area served. Commercial and industrial collections are made on a bulk limit of 100 pounds or 3 bushels per establishment; refuse in excess of this amount must be privately collected and disposed of.

Disposal - At present, refuse is disposed of by sanitary landfill methods at a privately owned dumping ground in the Town of Kearny. The City of Newark leases the right to use this land for disposal purposes at a cost of seven cents per cubic yard of refuse.

Refuse Composition - The composition of refuse collected in Newark was determined by the Newark Testing Laboratory based on a unit weight of 365.5 lbs. per cubic yard to be 83.7 per cent combustibles and garbage, and 15.5 per cent non-combustibles and ashes. Less than 1 per cent was not classified.

Refuse Quantity - The annual amount of mixed refuse which has been collected since 1945 has fluctuated from a high of 1,400,540 cubic yards in 1950 to approximately 926,000 cubic yards as of 1963.

Per Capita Refuse Collection - The following table reviews past trends in per capita refuse collection in Newark:

TABLE 15  
PER CAPITA REFUSE COLLECTION 1945-1963  
NEWARK, NEW JERSEY

Year	Cubic Yards (Annual Total)	Population	Cubic Yards (Per Capita)
1945	1,037,000	434,300	2.39
1950	1,401,000	438,800	3.19
1955	1,346,000	420,000	3.20
1960	960,000	402,800	2.38
1963 <sup>1</sup>	926,000	405,220	2.29

<sup>1</sup>City Clerk's Office.

Source: Municipal Incineration Report for Newark, New Jersey, 1964,  
L. Boon, Consulting Engineer.

#### Available Disposal Methods

In adopting a permanent refuse disposal system for the future, the merits of the following methods should be considered: ash dumping, incineration, composting and sanitary landfill.

Ash Dumping - The advantages of open dumping of ashes are its economy and the opportunity it offers in providing fill to reclaim low areas for use. It is a satisfactory method when properly handled, although fly ash becomes a nuisance when dumps are located too near a residential area. Ash dumps become objectionable when the site is used for disposing of other types of rubbish.

Incineration - Incineration is an excellent disposal method for garbage and combustible rubbish but it requires a large capital investment and high operating and maintenance costs. It is not a complete process and requires the operation elsewhere of a site for disposal of the ash and non-combustible rubbish which represents one-eighth to one-fourth of the original volume of refuse. Poor incinerator operation causes objectionable fly ash and odors.

Composting - Composting is a decaying process which is restricted exclusively to the disposal of garbage and which results in a by-product usable for agricultural humus or fertilizer. Composting has not been used widely in this country because it is still experimental in nature and because initial costs are high. Use of this method requires separate disposal of rubbish and ashes.

Sanitary Landfill - The sanitary landfill method can dispose of any or all types of refuse. It is a planned and systematically conducted method in which each day's refuse is compacted in trenches or gullies and sealed by burial under a 2-foot layer of earth. When properly conducted, it is a satisfactory, economical and sanitary disposal method. It has the additional advantage of furnishing the fill needed to reclaim low areas or unusable land for recreational, or residential or light industrial use.

Successful use of this method requires that it be thoroughly planned in advance, that the soil be tested by borings and that the area be mapped. Supervision is necessary to assure that the original plan is followed and that each day's deposit is sealed to form a closed cell.

The system has been the subject of considerable attention in recent years and is now a common method successfully used by many cities of all sizes, some of which abandoned incineration to convert to this method. The United States Public Health Service recommends it as an effective means of disposal.

Summary - The refuse methods available offer the following features for consideration: landfill alone handles the entire operation in a sanitary and economical manner; incineration is good but expensive and requires a sizeable additional dump with attendant nuisance and health problems; ash dumping is a satisfactory but incomplete method; and composting is somewhat experimental to be considered at this time.

Important

### Analysis

The refuse collection and disposal methods now used in Newark are satisfactory for the immediate future. Because of the need to renegotiate the contract for the existing disposal site and the possibility of increasing contract prices, the need exists for periodic evaluation of alternative disposal methods and costs.

## SANITARY AND STORM SEWERAGE SYSTEM

### Introduction

Newark's sewerage system is a network of drains designed and constructed for the purpose of collecting and disposing the liquid wastes of the municipality. Generally, sewerage systems are divided into two classes, sanitary and storm sewers. Sanitary sewers collect and dispose of the liquid wastes from individual properties while storm sewers are specifically used to collect and carry off rain water to some natural water course such as a stream or other body of water.

### Administration

The operation, maintenance and construction of the city's sanitary and storm sewers is the responsibility of the Bureau of Sewers which is a division of the Department of Public Works.

### Existing Facilities

The existing Newark sewerage system has been developed over a period of many decades. During the early years of Newark's development, sewers were designed and constructed on the basis of a combined system for both sanitary sewage and storm drainage. However, as the city's size expanded and outlying districts were annexed separate sewerage systems were constructed. The present practice is to provide separate systems wherever possible. The one area of the city which is yet to be serviced with sewer lines is the undeveloped Meadowland section.

The Meadowland area is presently being studied for future development by the several city agencies.

Sewage Treatment - At the present time all the sewage from the central section of the city is treated at the Passaic Valley Sewerage Commissioner's Treatment Plant located on Wilson Avenue at Avenue P. This plant not only serves the City of Newark but also serves all the towns and municipalities bordering on the Passaic River as far north as Paterson. The sewage from the westerly section of the city is treated at the Joint Meeting Sewage Treatment Plant in Elizabeth. Sewage from the Weequahic and Westerly Clinton Hill sections of the city is presently being disposed of through Peddie Ditch which empties into Newark Bay. This condition will soon be eliminated with the construction of the South Side Interceptor Sewer.

Sewer Lines - The main sewer line in Newark extends from the northern section of the city along McCarter Highway across the Pennsylvania Railroad tracks along Perry Street and Wilson Avenue to the Passaic Valley Treatment Plant. The major branches which flow into the main sewer extend along the following avenues: Springfield, South Orange, Central, Avon, Hawthorne, Bloomfield, Clinton and Verona. All sewage which is treated in Newark flows by gravity from existing sewer lines to the Newark Bay pumping station. It is then treated at the Passaic Valley Sewage Treatment Plant.

Due to the existence of a combined sewer system in the older sections of the city, regulators have been installed at twelve locations along the main sewer line.

These control valves relieve the load placed on existing sewer lines during heavy periods of run-off by regulating the flow of sewage into the main sewer line and providing for the discharge of excess water into the Passaic River.

The following table indicates the total length of each type of sewer and a breakdown of the different materials used for sewer lines.



TABLE 16

LENGTH OF SEWERS BY TYPE AND MATERIAL, 1962

NEWARK, NEW JERSEY

Material	Sanitary Sewers (Miles)	% of Total	Storm Sewers (Miles)	% of Total	Combined Sewers (Miles)	% of Total	Total Length (Miles)	% of Total
Stone	-	-	0.06	0.0	0.18	0.0	0.24	0.1
Concrete	7.78	2.0	4.67	1.2	3.61	0.9	16.06	4.0
Reinforced Concrete	3.40	0.9	39.47	9.9	13.81	3.5	56.68	14.2
Brick	5.20	1.3	2.24	0.6	59.78	15.0	67.22	16.9
Vitrified Clay Pipe	98.98	24.8	9.57	2.4	148.38	37.2	288.93	64.5
Cast Iron Pipe	1.36	0.3	0.07	0.0	0.02	0.0	1.45	0.4
Totals	116.72	29.3	56.08	14.1	225.78	56.6	398.58	100.0

Note: Numbers may not add up to total due to rounding.

Source: Bureau of Sewers, Department of Public Works, 1962.

### Analysis

The present sewer system does not provide service in the southern area of the city. Lack of sewer lines in this section of Newark necessitates the dumping of raw sewage and untreated industrial waste into Newark Bay. Because of this serious health and sanitary problem, the city has developed plans for the construction of a South Side Interceptor Sewer. This sewer will collect and convey sanitary sewage and industrial wastes originating in the southern section of the city to the Newark Bay Pumping Station at the Passaic Valley Treatment Plant.

Another serious problem which faces Newark at this time is the need for replacement of many of the combined sewers in the intensively developed sections of the city. Most of these sewers are 80 to 100 years old and due to natural deterioration over the years have to be replaced.

The 1964-69 Capital Improvement Program has provided funds for the replacement of many of these lines and is following a continued program of replacing all sewer lines which do not adequately serve existing areas.